ORIGINAL 305

ARIZONA CORPORATION COMMISSION

T-00000A-97-0238

NOTICE

TO: All Parties On the Qwest Section 271 Service List

FROM: Maureen A. Scott
Attorney, Legal Division

DATE: November 16, 2001

SUBJECT: Arizona OSS Test – Workshop on Final Functionality Test Report

---

The Workshop on Cap Gemini Ernst & Young Telecom Media & Network's ("CGE&Y") Final Functionality Test Report will be held on November 27-30, 2001. A copy of the Final Functionality Test Report is attached. The Workshop will be held at Qwest's facilities located at 5090 North 40th Street, Phoenix, Arizona. An agenda for the Workshop will be distributed later.

The underlying and supporting data for this Report, including the back-up reports by Hewlett-Packard ("HP"), are available for inspection by any interested parties at CGE&Y's headquarters located at 1438 W. Broadway Road, Suite B-250, Tempe, Arizona. The hours of availability are from 8:00 a.m. to 5:00 p.m. Monday through Friday, by appointment only. Parties desiring to review the underlying data or make copies of it should call Twila Wright at 480-736-8500. Parties should submit their questions in writing in advance to CGE&Y and HP. A template for the questions is attached.

For parties unable to attend the Workshop in person, there will be a conference bridge available. The call-in number for November 27 and 28, 2001 is (602) 542-9000. The call-in number for November 29 and 30, 2001 is (602) 542-9012. The State Conference Operator has asked us to inform parties who intend to participate telephonically, not to press any buttons on your phones after you dial in to the call or you will preclude other parties from being able to obtain access to the call.

We look forward to seeing everyone at the Workshop. If you have any questions or would like directions to the Qwest facility, please feel free to contact me at 602-542-6022 or my secretary, Vi Kizis, at 602-542-3402.

Original and **ten** copies of the foregoing were filed this 16th day of November 2001, with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, AZ 85007

Copies of the foregoing were mailed and/or hand-delivered this 16th day of November, 2001, to:

Charles Steese
Andrew Crain
QWEST Communications, Inc.
1801 California Street, #5100
Denver, Colorado 80202

Maureen Arnold
QWEST Communications, Inc.
3033 N. Third Street, Room 1010
Phoenix, Arizona 85012

Michael M. Grant
GALLAGHER AND KENNEDY
2575 E. Camelback Road
Phoenix, Arizona 85016-9225

Timothy Berg
FENNEMORE CRAIG
3003 N. Central Ave., Suite 2600
Phoenix, Arizona 85016

Nigel Bates
ELECTRIC LIGHTWAVE, INC.
4400 NE 77th Avenue
Vancouver, Washington 98662

Brian Thomas, VP Reg. - West
Time Warner Telecom, Inc.
520 SW 6th Avenue, Suite 300
Portland, Oregon 97204

Richard P. Kolb, VP-Reg. Affairs
OnePoint Communications
Two Conway Park
150 Field Drive,Suite 300
Lake Forest, Illinois 60045

Eric S. Heath
SPRINT COMMUNICATIONS CO.
100 Spear Street, Suite 930
San Francisco, CA 94105

Thomas H. Campbell
LEWIS & ROCA
40 N. Central Avenue
Phoenix, Arizona 85007

Andrew O. Isar
TRI
4312 92nd Avenue, N.W.
Gig Harbor, Washington 98335

Michael W. Patten
Roshka Heyman & DeWulf
One Arizona Center
400 East Van Buren, Suite 800
Phoenix, Arizona 85004

Charles Kallenbach
AMERICAN COMMUNICATIONS
SERVICES INC
131 National Business Parkway
Annapolis Junction, Maryland 20701

Thomas F. Dixon
MCI TELECOMMUNICATIONS CORP
707 17th Street, #3900
Denver, Colorado 80202

Kevin Chapman, SBC
Director-Regulatory Relations
5800 Northwest Parkway
Suite 125, Room 1-S-20
San Antonio, TX 78249

Richard S. Wolters
AT&T & TCG
1875 Lawrence Street, Room 1575
Denver, Colorado 80202

Joyce Hundley
UNITED STATES DEPARTMENT OF JUSTICE
Antitrust Division
1401 H Street NW, Suite 8000
Washington, DC 20530

Joan Burke
OSBORN MALEDON
2929 N. Central Avenue, 21st Floor
P.O. Box 36379
Phoenix, Arizona 85067-6379

Scott S. Wakefield, Chief Counsel
RUCO
2828 N. Central Avenue, Suite 1200
Phoenix, Arizona 85004

Lyndon J. Godfrey
Vice President – Government Affairs
AT&T
111 West Monroe St., Suite 1201
Phoenix, Arizona 85004

Daniel Waggoner
DAVIS WRIGHT TREMAINE
2600 Century Square
1501 Fourth Avenue
Seattle, WA 98101-1688

Raymond S. Heyman
Randall H. Warner
ROSHKA HEYMAN & DeWULF
One Arizona Center
400 East Van Buren, Suite 800
Phoenix, Arizona 85004

Diane Bacon, Legislative Director
COMMUNICATIONS WORKERS OF AMERICA
5818 North 7th Street, Suite 206
Phoenix, Arizona 85014-5811

Gena Doyscher
GLOBAL CROSSING LOCAL SERVICES, INC.
1221 Nicollet Mall
Minneapolis, MN 55403-2420

Karen L. Clauson
ESCHELON TELECOM, INC.
730 Second Avenue South, Suite 1200
Minneapolis, MN 55402

Mark P. Trinchero
Davis, Wright Tremaine
1300 SW Fifth Avenue, Suite 2300
Portland, OR 97201

Traci Grundon
Davis, Wright & Tremaine LLP
1300 S.W. Fifth Avenue
Portland, OR 97201

Bradley Carroll, Esq.
COX ARIZONA TELCOM, L.L.C.
20401 North 29 Avenue
Phoenix, AZ 85027

Mark N. Rogers
EXCELL AGENT SERVICES, L.L.C.
2175 W. 14th Street
Tempe, AZ 85281

Barbara P. Shever
LEC Relations Mgr.-Industry Policy
Z-Tel Communications, Inc.
601 S. Harbour Island Blvd., Suite 220
Tampa, FL 33602

Jonathan E. Canis
Michael B. Hazzard
Kelly Drye & Warren L.L.P.
1200 19th Street, NW, Fifth Floor
Washington, D.C. 20036

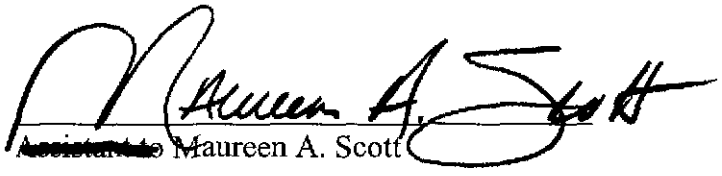
Ms. Andrea P. Harris
Sr. Manager, Reg.
ALLEGIANCE TELECOM, INC.
2101 Webster, Suite 1580
Oakland, California 94612

Dennis D. Ahlers, Sr. Attorney
Eschelon Telecom, Inc.
730 Second Ave. South, Ste 1200
Minneapolis, MN 55402

Garry Appel, Esq.
TESS Communications, Inc.
1917 Market Street
Denver, CO 80202

Todd C. Wiley Esq. for
COVAD Communications Co.
GALLAGHER AND KENNEDY
2575 East Camelback Road
Phoenix, Arizona 85016-9225

K. Megan Doberneck, Esq. for
COVAD Communications Co.
7901 Lowry Blvd
Denver, CO 80230



[redacted] Maureen A. Scott

ORIGINAL

Final Report Functionality Test

October 11, 2001
Version 1.0
Prepared For:

Arizona Corporation Commission

Cap Gemini Ernst & Young
2301 N. Greenville Av.
Suite 400
Richardson, TX 75082

Document Control Sheet

Version	Date	Reason
1.0	10/11/01	Distributed to TAG for review.

Table of Contents

2. Functionality Test....4
2.1 Pre-Ordering....20
2.1.1 Introduction....20
2.1.2 Scope....20
2.1.3 Process....21
2.1.4 Results....24
2.2 Ordering/Provisioning....28
2.2.1 Introduction....28
2.2.2 Scope....28
2.2.3 Process....29
2.2.4 Results....33
2.3 Maintenance and Repair....49
2.3.1 Introduction....49
2.3.2 Scope....49
2.3.3 Process....50
2.3.4 Results....54
2.4 Billing....56
2.4.1 Introduction....57
2.4.2 Scope....57
2.4.3 Process....58
2.4.4 Results....65
2.5 Performance Measurement Test....71
2.5.1 Introduction....71
2.5.2 Scope....71
2.5.3 Process....72
2.5.4 Analysis....76
Appendix A – Glossary....135
Appendix B – Incident Work Order Summary....137
Appendix D – Test Call Instructions....154
Appendix E – Unplanned Trouble Log....158
Appendix F – AT&T / HPC / CGE&Y Interface Process For Qwest OSS Test....159
Appendix G – Order Test Documents....166
Appendix H – Test Order Scripts....180
Appendix I – Letters of Authorization for Residence and Business....183
Appendix J – Order Execution Process....188
Appendix K – COVAD Observation Data....192

2. Functionality Test

Introduction

Section 271 of the Telecommunications Act of 1996 contains a list of requirements with which an Incumbent Local Exchange Carrier (ILEC) must comply before it is allowed to offer long distance services. One of the Federal Communications Commission (FCC) requirements is that an ILEC must demonstrate that it has provided nondiscriminatory access for Competitive Local Exchange Carriers (CLECs) to its operations support systems (OSS). OSS include the basic systems and functions that are part of ordering, maintaining, repairing and billing for telecommunications services. As part of the certification of Qwest to provide nondiscriminatory access to its OSS, Cap Gemini Ernst & Young (CGE&Y) was engaged to conduct a Functionality Test.

The purpose of functionality testing is to determine whether the ILEC has developed sufficient electronic functions and manual interfaces to allow competing carriers equivalent access to all of the necessary OSS functions. In short, the purpose of functionality testing is to determine whether the ILEC's OSS work.

This report summarizes the activities conducted during the Functionality Test of the Qwest OSS and the associated performance measurements derived from the test data. This testing and evaluation was performed on the "critical" OSS functions, and the results can be found in the following sections:

- Pre-Ordering (Section 2.1 and 2.5.4.1)
- Ordering and Provisioning (Section 2.2 and 2.5.4.1)
- Maintenance and Repair (M&R) (Section 2.3 and 2.5.4.1)
- Billing (Section 2.4 and 2.5.4.1)
- Performance Measurement (Section 2.5)

The findings of CGE&Y in this Functionality Test, in combination with the evaluation of other parts of the OSS test and the 271 Checklist, may be used by the Arizona Corporation Commission (ACC) to determine the ability of Qwest's production OSS to provide non-discriminatory access to CLECs.

Executive Summary

The Functionality Test involved the end-to-end processing of Local Service Requests (LSRs) so that Qwest OSS and processes, from pre-order through billing, could be evaluated. The Functionality Test was conducted from December 2000 through June 2001 in accordance with Section 4 of the Master Test Plan (MTP) and Section 3 of the Test Standards Document (TSD). The scenarios tested were designed to replicate a mix of resale and Unbundled Network Elements (UNE) order activity for a start-up

CLEC in the Qwest Arizona serving area. The testing included resale, Unbundled Network Element-Platform (UNE-P), Unbundled Network Element-Loop (UNE-L), Local Number Portability (LNP), and UNE-L with LNP. Business and residential orders were issued, encompassing new (install), conversion as specified, partial migration, change, disconnect, and cancel activities.

The test generated data that was used in the statistical evaluation of performance measurements defined in the Arizona Service Performance Indicator Definitions (PID), Version 6.3 dated May 1, 2001 (PID 6.3). The PID defines key performance indicators for wholesale order activity to measure Qwest's performance. CGE&Y evaluated the same performance measurements for Qwest retail and aggregate CLEC during the same time period as the test data.

Findings

Overall, CGE&Y finds that Qwest provides non-discriminatory access to its OSS for CLECs to generate LSRs for wholesale services in Arizona. This finding is based on test activity; observations; and system, procedural and metric improvements that Qwest has made in response to Incident Work Orders (IWOs) generated during this Functionality Test as well as the performance measure results of overall parity. The highlights of these findings are shown below:

- Pre-Order

The pre-order measures that met parity for all disaggregations were:

- Electronic Flow-through (PO-2)
- LSR Rejection Notice Interval (PO-3)
- Percent LSRs Rejected (PO-4)
- Work Completion Notification (PO-6)
- Billing Completion Notification (PO-7)
- Timely Jeopardy Notices (PO-9)

There were two pre-order measures that did not meet parity for all disaggregations: FOC Timeliness (PO-5) and Jeopardy Notices (PO-8). The FOC Timeliness measure met four of seven disaggregations, and the Jeopardy Notices measure met one of two disaggregations.

CGE&Y observed instances when address validation transactions did not return the appropriate responses. See Section 2.1 for a description of the three IWOs created during pre-order testing. The pre-order data gathered during the Functionality Test will not be used to determine whether pre-order response times meet the performance standards contained within PID 6.3. An agreement was reached with

the Test Advisory Group (TAG) to defer findings of PID compliance to the Capacity Test Report.

- Order

The ordering measures that met parity for all disaggregations were:

- Coordinated Hot Cut Interval (OP-7)
- Coordinated Cuts On Time (OP-13)

There were four ordering/provisioning measures that did not meet parity for all disaggregations: Installation Commitments Met (OP-3), Installation Intervals (OP-4), New Service Installation Quality (OP-5), and Delayed Days (OP-6). The Installation Commitments Met measure met 26 of 27 disaggregations. The Installation Intervals measure met 23 out of 27 disaggregations. The Installation Quality measure met 9 out of 10 disaggregations. The Delayed Days measure met 18 out of 20 disaggregations.

Qwest did not deliver a Service Order Completion (SOC) on completed orders approximately 25% of the time. (AZIWO1045) The resolution of this IWO generated eight system changes in multiple Qwest systems. This IWO is undergoing retest.

CGE&Y encountered numerous incidents of Qwest using the Firm Order Confirmation (FOC) to communicate a due date jeopardy, or a reject message after receipt of an initial FOC. Qwest is working through the Co-provider Industry Change Management Process (CICMP) process to elicit CLEC input to improve the efficiency of the FOC process. (AZIWO1107, AZIWO1114, AZIWO1117, AZIWO2115, AZIWO2116, AZIWO2069)

Also of concern is the percentage of orders not receiving a SOC. This concern is based on CGE&Y's opinion that the system changes generated by AZIWO1045 demonstrated that Qwest processes were not sufficient to ensure that CLECs receive timely completions on all LSRs.

- M&R

The M&R measures that met parity for all disaggregations were:

- Out of Service Troubles Cleared Within 24 Hours (MR-3)
- All Troubles Within 48 Hours (MR-4)
- All Trouble Cleared Within 4 Hours (MR-5)
- Repair Repeat Report Rate (MR-7)
- Repair Appointments Met (MR-9)

- Customer and Non-Qwest Related Trouble Reports (MR-10)

There was one M&R measure that did not meet parity for all disaggregations: Mean Time To Restore (MR-6). The Mean Time To Restore measure met nine of eleven disaggregations.

Overall, CGE&Y encountered very few negative results during M&R testing. Some CEMR tickets were either not present or were corrupted, and these are discussed in Section 2.3.4.1. EB-TA results were positive; the only negative result relates to Qwest clearance of a ticket.

- Billing

The Billing measures that met parity for all disaggregations were:

- Time To Provide Recorded Usage Records (BI-1)
- Invoices Delivered Within 10 Days (BI-2)
- Billing Accuracy (BI-3) *
- Billing Completeness (BI-4)

* It should be noted that although the Billing Accuracy (BI-3) PID reflects parity, this PID only represents adjustments given to customers as a result of a service fault. The billing results reflected in Section 2.4.4 contain all billing problems identified by CGE&Y.

CGE&Y encountered numerous billing discrepancies during this validation. Qwest has responded that these discrepancies were primarily the result of human error and that training has been provided to the individuals and teams to prevent future occurrences. (AZIWO1152, AZIWO1154, AZIWO1163, AZIWO1166, AZIWO1183) See Appendix B for a listing of the IWOs on these billing issues.

- Performance Measurement

It is the opinion of CGE&Y that, overall, Qwest provided parity for all performance indicators as stated above. In cases where there is disparity in performance measures, CGE&Y recommends review of future commercial data to draw conclusions of parity between wholesale and retail. A detailed discussion of the performance results is presented in Section 2.5.4.

CGE&Y also made visual observations during the Functionality Test and reached a subjective opinion that access to the Qwest OSS was satisfactory in the following areas:

- User documentation in general is easily accessible through the Qwest website and training classes.
- Navigation through the CEMR application was user friendly.
- Gateway down time was minimal during the test.
- Bill rating and charging for test accounts was processed without error.
- The Interconnect Mediated Access (IMA) pre-order menu was easy to navigate.
- The format of pre-order reports was clear and understandable.
- The test and turn-up activities were completed successfully due to the knowledge and helpfulness of the Loop Operation Center (LOC).

CGE&Y's review of the Qwest OSS identified a number of documentation, process, training and system issues. Appendix I of the TSD established the methodology for creating IWOs to record, investigate, and provide resolution for issues encountered during testing. CGE&Y created 117 IWOs during the test to address these issues.

The following table identifies the functional areas tested and classifies the IWO findings.

	OSS Change	System Tables	Training	Procedure	Metrics	Documentation	TOTAL
Pre-Order	15	3	3	2	0	4	27
Order/ Provision	18	3	13	5	0	4	43
M&R	3	0	0	0	0	0	03
Billing	12	1	9	6	0	0	28
Performance Measures	0	1	0	0	15	0	16
TOTAL	48	8	25	13	15	8	117

In CGE&Y's opinion, the total quantity of system changes identified in relation to the total number of issues (48 of 117) is a major concern due to their negative impact on the order flow. CGE&Y, however, is encouraged by the positive interactions taking place in the CICMP process. The CICMP process allows CLECs to provide input to Qwest's system changes for wholesale order processing.

In conclusion, CGE&Y finds that Qwest has demonstrated that it provides non-discriminatory access to its OSS for CLECs in Arizona. As demonstrated by the IWOs generated in this Functionality Test, the wholesale process is not flawless. The results of IWOs undergoing retest in this document will be included in the Final Report. Through the CICMP process, Qwest provides the opportunity for CLECs to participate in the identification of system and business rules changes that will improve the efficiency of the process. Thus Qwest shows a willingness to maintain parity between the retail and wholesale ordering processes, thereby providing CLECs with a meaningful opportunity to compete in the local provider market.

Approach

The approach for the Functionality Test was to execute the end-to-end processing of LSRs so that Qwest OSS and processes, from pre-order through billing, could be evaluated. The testing focused on the products and services listed in Section 3.4 of the MTP. Both business and residential orders were issued, encompassing new (install), conversion as specified, partial migration, change, disconnect, and cancel activities.

The involvement and cooperation of test participants was crucial to the success of the Functionality Test. The test participants and their respective roles are summarized as follows:

- CGE&Y, functioning in the capacity of Test Administrator, monitored the testing effort and acted as test supervisor in the day-to-day operations of the project. In addition, CGE&Y tracked issues that arose during the test, performed root-cause analysis of those issues with input from the test participants, analyzed the outcome of the test effort, produced test scripts and provided a feedback report to the ACC. CGE&Y generated the Functionality Test scripts, coordinated other parties involved in the testing, and produced the final report.

- Hewlett-Packard, functioning as the Test Generator, assumed the role of Pseudo-CLEC. The Pseudo-CLEC had the same roles and responsibilities as an operating CLEC, which included obtaining certification of its transaction generator software to function with Qwest's OSS before testing began.

- End Users (Friendlies) were recruited and managed by CGE&Y to participate in functionality testing of Qwest services. Friendlies provided the physical locations to install test lines and performed specific test calls as directed by CGE&Y. Friendlies were used in Resale, UNE-P, UNE-L, UNE-L with LNP, and LNP tests. Friendlies enhanced the test effort by providing real-life customer input.

- Three CLECs participated in the test to provide the supporting activities and or facilities required during the test that could not be achieved by the Pseudo-CLEC arrangement. AT&T provided assistance with UNE-L and LNP provisioning and testing. WorldCom supported the submission and data collection of trouble tickets on Pseudo-CLEC accounts via Electronic Bonding-Trouble Administration (EB-TA). COVAD entered CGE&Y test orders for line sharing, and provisioned and tested Digital Subscriber Line (DSL) on the installed lines.

- Qwest, in the position of ILEC, provided assistance with provisioning of pseudo test accounts, and order processing and provisioning. Qwest also provided Subject Matter Experts (SMEs) for consulting and support during test planning, preparation, execution, and analysis and for establishing the Friendly accounts. Qwest's systems, operations, and processes are the basis for the test.

- The ACC was the overseer of the test effort. They had the following responsibilities:

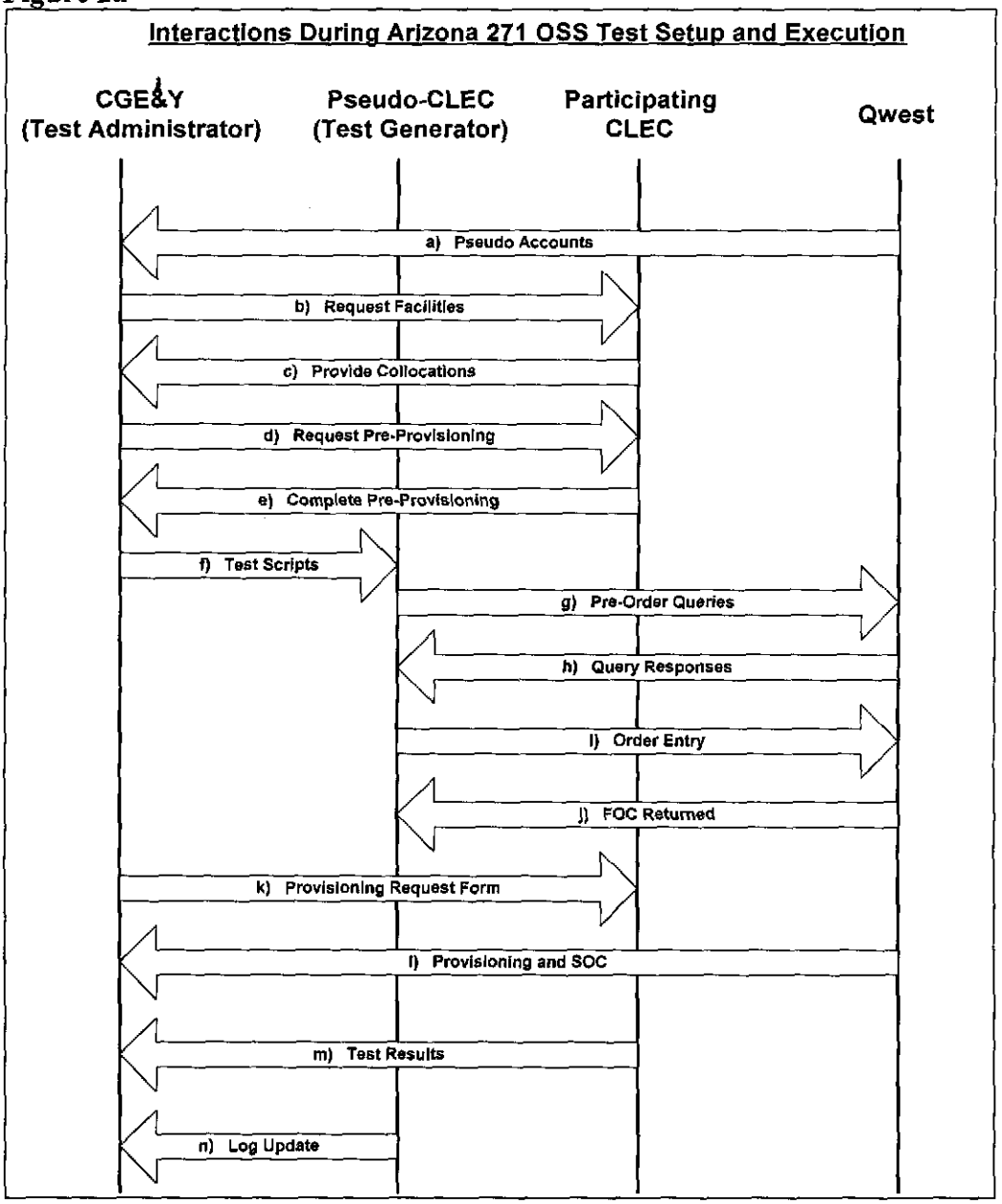
  - Provided overall project management
  - Owned the MTP
  - Created the testing implementation timeline
  - Appointed a Technical Advisor to act as liaison between the ACC and the test entities
  - Appointed a Test Administrator/Manager to manage the test activities
  - Appointed a Test Generator to develop the testing interfaces and conduct related activities
  - Reviewed and approved the Final Report template prepared by the Test Administrator/Manager.

- Doherty and Company, Inc. (DCI) had the following responsibilities:

  - Acted with/for the ACC to establish the draft and final MTP
  - Provided ongoing counsel and technical support to the ACC throughout the testing process
  - Maintained communications among all interested parties and managed the flow of information among parties as directed or approved by the Commission staff
  - Apprised the third party Test Administrator and the ACC staff of its communications with all parties or TAG participants on a weekly basis and any conclusions reached
  - Assisted the ACC in overseeing the test process and in evaluating test results and recommendations

The interaction of these test participants was critical to the success of the testing and is described in Figure 2a below. Additional details on these interactions can be found throughout this report.

Figure 2a



Description of Interaction Points:

a) Qwest created pseudo accounts (described in this section)
b) CGE&Y requested collocation facilities from the participating CLEC (described in this section)
c) Participating CLEC identified available collocations (Appendix F, Interface Process)

d) CGE&Y requested pre-provisioning based on test scenarios (Appendix F, Interface Process)
e) Participating CLECs completed pre-provisioning of facilities (Appendix F, Interface Process)
f) CGE&Y sent test scripts to Pseudo-CLEC (Section 2.2.3, Process)
g) Pseudo-CLEC issued pre-order queries to Qwest (Section 2.1.3, Process)
h) Query responses returned by Qwest (Section 2.1.3, Process)
i) Pseudo-CLEC issued orders to Qwest (Section 2.2.3, Process)
j) FOC returned by Qwest (Section 2.2.3, Process / Tracking)
k) CGE&Y sent Provisioning Request Form (PRF) to participating CLEC (Section 2.2.3, Process / Tracking)
l) Qwest provisioned order and returned SOC (Section 2.2.2, Scope)
m) Participating CLEC returned test results (Section 2.2.2, Scope)
n) Pseudo-CLEC updated tracking log (Section 2.2.3, Process)

CGE&Y then developed test cases from scenarios listed in Attachment A of the MTP to verify and validate the following:

- The ability of the Pseudo-CLEC and participating CLECs to perform the necessary pre-order activities and to submit LSRs and of Qwest to successfully provision, install and bill the requested service or facilities in an accurate and timely fashion. This included a CLEC's ability to track the progress of the LSRs through Qwest systems.

- The ability of the Pseudo-CLEC to access M&R systems using Customer Electronic Maintenance & Repair (CEMR), and the participating CLEC to access M&R systems using EB-TA with test cases supplied by CGE&Y. This included the ability to issue, track and close a trouble ticket.

In addition, CGE&Y notified Qwest of test account activity so they could perform database updates on certain special services, including the 911/E911, Operator Assistance (OA) and Directory Assistance (DA) to avoid adverse impact of test accounts on Qwest downstream production output.

The table below shows the products tested and the number of scenarios planned to meet the sample size requirements specified in Section 9.2 of the TSD and the statistical approach specified in Section 2.5 of this report:

Testing Scenarios	Planned
UNE-Loop	140
Business POTS Install (Resale)	140
Business POTS Conversion (Resale)	140
Private Lines	50
ISDN – ADSL	50

Testing Scenarios	Planned
UNE-P Rural	140
UNE-P Conversion	140
UNE-P Install	140
Residential POTS Install (Resale)	140
Residential POTS Conversion (Resale)	140
Scenarios Outside the Product Matrix	47
Totals	**1267**

Prior to the start of the Functionality Test, a series of tasks was undertaken by CGE&Y to ensure that all aspects of the test were conducted and managed properly. Following is a summary of the major tasks:

- Acquired friendly and pseudo accounts - CGE&Y developed a pool of 609 volunteer end-users (Friendlies), in the state of Arizona who volunteered their physical locations to install test lines. TAG members recruited Friendlies on behalf of the Test Administrator from their respective groups. Qwest created 956 pseudo accounts as record-only retail test accounts to supplement test addresses provided by the Friendlies in order to achieve the total test cases required.

- Identified and classified friendly and pseudo accounts - CGE&Y identified the characteristics (e.g., business/residence, service location, availability of participating CLEC collocation facilities, existing vs. additional service) of friendly and pseudo accounts to facilitate the mapping each to a particular test case.

- Obtained Letter of Authorization (LOA) - CGE&Y was required to send LOAs (see Appendix I) to each potential Friendly participating in the test. The signed LOAs enabled CGE&Y to act as an agent to set up the Friendlies' lines for testing. CGE&Y forwarded copies of the signed LOAs to the Pseudo-CLEC.

- Coordinated test activities with Pseudo-CLEC - CGE&Y coordinated the scheduling of tests, communication of results, and escalation of issues with the Pseudo-CLEC.

- Created Test Information Packets for Friendlies - CGE&Y created information packets containing:

  - Call Detail Log (see Appendix C)
  - Test Call Instructions (see Appendix D)
  - Unplanned Trouble Log (see Appendix E)

  These information packets were delivered to the Friendly for each test line.

- Retrieved Customer Service Records (CSRs) and validated accounts - The CSRs for each friendly and pseudo account were retrieved via the Qwest IMA-Graphical User Interface (GUI). In order to ensure that the requirements for each order and product type would be met, the status of the service was validated for each account, using the CSR as a reference.

- Created database for friendly and pseudo accounts - CGE&Y created a database containing the necessary information to manage the friendly and pseudo accounts during testing. The database contained information about friendly and pseudo accounts. The information categories included names, telephone numbers, addresses, business/residence type, collocation match status, and LOA status.

- Mapped friendly and pseudo accounts to test cases - CGE&Y determined the most efficient match of test scenarios for friendly and pseudo accounts and mapped them to test cases based on their service location, also considering availability of collocation facilities, and business/residence status. Friendlies without participating CLEC collocation facilities were assigned to UNE-P and POTS (resale) test cases.

- Developed test cases - Test cases were developed from the scenarios outlined in Attachment A of the MTP. Friendly and pseudo accounts may have had multiple test case activity at each address; for example, new and change order, new and M&R, and installation of multiple lines. The following sources of information were used to create test cases:

  - Friendly database for service address[1] – database including the specific information for each Friendly (e.g., name, address, LOA)
  - Test account spreadsheet[2] - spreadsheet including the account information from the friendly database and the pseudo accounts built by Qwest
  - Test case matrix to identify product activities to be tested[3] - spreadsheet listing the scenario requirements from Appendix A of the MTP
  - Collocation spreadsheet for cooperative loop testing[4] based on the Friendlies collocation availability. This spreadsheet includes the participant collocation and the available Connecting Facility Assignments (CFAs)

  From information contained in the sources listed above, the following steps were taken to develop test cases:

  1. Retrieve CSR via IMA-GUI.
  2. Match CSR to test account spreadsheet (TestAccts.xls).[5]
  3. Organize test accounts by scenario requirements (TestCases.xls).[6]

[1] CGE&Y Archive File: FT #1 – Friendly Database
[2] CGE&Y Archive File: FT #2 – Test Accounts Spreadsheet
[3] CGE&Y Archive File: FT #3 – Test Case Matrix
[4] CGE&Y Archive File: FT #4 – Collocation Spreadsheet
[5] CGE&Y Archive File: FT #2 – Test Accounts Spreadsheet

4. Screen the Friendlies' accounts for eligibility based on their location in the serving area. In addition to the pre-ordering steps mentioned above (numbers 1 – 2), the screening also included:

    - Matching addresses to participating CLEC collocation sites
    - Selecting residential and business addresses per product type

5. Enter the information in the test account spreadsheet (e.g., basic scenario, feature USOCs, Directory Listing (DL) information and any other pertinent information necessary to the test process).
6. Enter the tracking number in the list in progress spreadsheet (Tracking_#_List_In_Progess.xls).[7]
7. Enter the tracking number and the scenario specifications in the "TestAccts.xls."[8]
8. Update the access database.
9. Generate and print the scripts (see Appendix H, Test Order Scripts).
10. After the order completes, enter the information in the Return Order Log spreadsheet.[9]

These steps are detailed in Appendix J, "Order Execution Process."

- Created test scripts - Produced individual test scripts (see Appendix H) based on the details of each test case. These scripts contained the necessary data to create an LSR. The test scripts include the tracking number, basic scenario, features, Universal Service Order Codes (USOCs), DL information and other pertinent information necessary to execute the test.

- Delivered test scripts to Pseudo-CLEC - CGE&Y printed and delivered test scripts to the Pseudo-CLEC. Test scripts were delivered on a daily basis and each test script was recorded on the Return Order Log.[10]

- Met friendly criteria

The following friendly criteria from Section 2.4 of the TSD were met prior to commencing the test:

Criterion	Completed
	✓

[6] CGE&Y Archive File: FT #3 – Test Case Matrix
[7] CGE&Y Archive File: FT #5 – Tracking Number List In Progress Spreadsheet
[8] CGE&Y Archive File: FT #2 – Test Accounts Spreadsheet
[9] CGE&Y Archive File: FT #6 – Return Order Log Spreadsheet
[10] CGE&Y Archive File: FT #6 – Return Order Log Spreadsheet

Criterion	Completed
CGE&Y End-User Team developed Friendlies solicitation methods.	
ACC reviewed solicitation method(s) and approved solicitation method(s) for Friendlies.	✓
Solicitation of Friendlies were sent out by TAG Members within their organization via Email.	✓
Potential Friendlies nominated themselves as volunteers by responding to telephone numbers provided by the TA in the initial contact letter. The TA contact numbers are voicemail systems that were checked frequently. On the greeting the potential volunteer was asked to leave their: Name, Address, Contact Telephone Numbers, and the best time to contact the potential volunteer.	✓
Friendlies were accepted by the CGE&Y End-User Team upon receipt of the signed Letter of Authorization (LOA).	✓
Test lines are pre-provisioned at necessary Friendly locations.	✓

In addition to these tasks, CGE&Y developed a questionnaire in accordance with Section 8 of the TSD which was designed to assess the interaction between Qwest and its CLEC wholesale customers in the areas of Network Design Requests (NDR), collocation and interconnection trunking. The questionnaire was delivered to each of the participating CLECs and included questions on the usability and completeness of procedures and documents, adequacy of NDR, collocation forecast forms and order/provisioning processes for interconnection trunking.

The manner in which CGE&Y conducted the Functionality Test was guided and directed by the MTP and TSD. The MTP and TSD documents directed the testing into the following areas:

- Pre-ordering

Pre-ordering is the process by which CLECs query Qwest databases to verify or obtain the information necessary to prepare and issue a valid LSR or Access Service Request (ASR) and to retrieve information about the resources of Qwest.

In accordance with Sections 4.2 and 4.3 of the MTP, the scope of the pre-order test was to review the following transactions:

- CSR query that allows the CLEC to view an end-user's current service record
- Address Verification query that allows the CLEC to verify service address information, as registered in Qwest's service areas
- Reserve Telephone Number (TN) function that allows the CLEC to reserve one or more TNs at a verified address
- Service and Feature Availability query that allows the CLEC to retrieve a list of services and features available on Qwest's serving switch for the verified service address and as allowed by the CLEC's interconnection contract
- Appointment Scheduler functionality that allows the CLEC to view available dates and appointment times for dispatch of field technicians
- Facility Availability query that allows the CLEC to view whether facilities are available at the verified address, whether dispatch is required for connection of new lines and, if applicable, notification of possible held orders
- Loop Qualifications query which provides characteristics of the loop (e.g., length, loading) for designed circuits

Additionally, the pre-order process verifies appropriateness and timeliness of reject messages as well as a successful connection to the pre-order system. CGE&Y evaluated the pre-ordering process by monitoring and documenting the submission of pre-order queries performed in preparation for defined test cases.

❖ Ordering/Provisioning

Ordering is the process that CLECs use to format and issue LSRs or ASRs to Qwest.

Provisioning consists of the processes that Qwest uses to install the service or facility ordered, or otherwise implement the CLEC order.

As described in Section 3.7.5.1 of the TSD, the scope of the Functionality Test for ordering and provisioning activities encompassed the following:

- Testing of Qwest's interfaces and order entry systems to validate the ability to receive LSRs via Electronic Data Interface (EDI), IMA-GUI and FAX as prescribed in the MTP
- Transmission of multiple order types by the Pseudo-CLEC to Qwest, including new installation, conversion as specified, conversion as is, change, suspend, restore, disconnect, cancellation (supp-to-cancel) orders and 911/DA database updates as required
- Qwest's transmission of acknowledgements (EDI), rejects, jeopardy notifications, FOCs, and SOCs to the Pseudo-CLEC
- Validation that each order was provisioned as specified in the order
- Processing of flow-through and non flow-through orders (i.e., those accepted by the Service Order Processor (SOP) and those needing human intervention in order to create the internal Qwest service orders)

- Daily reporting of test status including:

  - Number of tests run to date by category
  - Tests passed to date by category
  - Tests failed to date by category
  - Incidents recorded to date
  - Testing incident resolutions received to date (via Performance Acceptance Certificates (PACs) from Qwest)
  - Re-tests performed on PACs to date
  - Passed re-tests and failed re-tests (orders still in progress were not included on the reports, but were tracked)
  - For coordinated requests, determination if Qwest contacted the Pseudo-CLEC at the appropriate times and provided the appropriate information

CGE&Y performed this evaluation of the ordering/provisioning process by monitoring and documenting the issuance of orders by the Pseudo-CLEC.

❖ Maintenance and Repair

M&R is the function whereby CLECs diagnose and troubleshoot customer-reported troubles, report troubles, open trouble tickets, inquire on the status of trouble tickets, and close trouble tickets. Through submission of M&R test trouble tickets, CGE&Y evaluated a CLEC's ability to perform these activities associated with trouble shooting and returning a customer's line to service. According to Section 3.7.6 of the TSD, the focus of the M&R evaluation included the ability to:

- Determine whether these systems generate a timely and accurate trouble report
- Determine if the Pseudo-CLEC or participating CLEC can perform a Mechanized Loop Test (MLT) for a reported trouble
- Determine if the MLT results provide the Pseudo-CLEC or participating CLEC the appropriate information
- Obtain the status of a trouble ticket
- Determine whether Qwest notifies the Pseudo-CLEC or participating CLEC of successful restoration of service after the service fault is identified and corrected
- Retrieve a customer's trouble history, as applicable

CLECs can perform M&R activities electronically, using functionality provided to CLECs by Qwest via one of the available application options, or via a telephone call to Qwest's Account Maintenance Service Center. Section 3.7.6.1 of the TSD limited functionality testing to the two primary interfaces available for CLEC M&R. These are:

➢ **Customer Electronic Maintenance & Repair (CEMR)** - a proprietary web-based GUI application designed by Qwest

- **Electronic Bonding - Trouble Administration (EB-TA)** – a gateway interface with associated programming and business rules that allows CLECs to design their own GUIs for conducting M&R activities with Qwest.

CGE&Y performed this evaluation of the M&R process by monitoring and documenting the creation of trouble tickets by the Pseudo-CLEC.

❖ Billing

Billing is the process whereby Qwest provides the CLECs with wholesale bills and usage data, including records for services, features, network elements and functions that were ordered and provisioned.

Section 4.3.4 of the MTP and Section 3.8 of the TSD identified the focus for the validation of the Pseudo-CLEC bills to be verification of the following:

- The bills accurately reflect what was ordered.
- The bills provided accurate recurring, non-recurring, and usage-sensitive charges.
- Rates were applied correctly for each product, service, or element.
- Taxes and surcharges were assessed correctly.
- Discounts and adjustments were performed correctly.
- Prorated amounts were charged accurately according to the disconnect date.
- Disconnects were processed and appeared accurately on the bill.
- Daily Usage Files (DUF) were updated accurately.

❖ Performance Measures

The statistical evaluation of performance measurements calculated from data gathered during the Functionality Test is designed to provide a statistically valid assessment of Qwest's performance in providing service to the CLECs based on established performance measures.

In accordance with Section 8.5.3 of the MTP and Section 7.3.4 of the TSD, the Functionality Test Performance Measurement Test encompassed the following activities:

- Collection of Qwest performance measurement raw data (Ad hoc data) for the Pseudo-CLEC, Qwest, and aggregate CLECs.
- Development of Functionality Test data captured by the Pseudo-CLEC.
- Validation that data observed and captured by the Pseudo-CLEC is accurately reflected in Qwest raw data files.
- Independent calculation of all measurements indicated in Appendix C of the MTP for the Pseudo-CLEC, aggregate CLECs, and Qwest retail using Qwest raw

data and for the Pseudo-CLEC using Functionality Test data collected by the Pseudo-CLEC according to the statistical approach outlined in Section 9 of the TSD.

- Declaration of parity/disparity or pass/fail for all performance measurement results where sufficient data are available.
- Comparison of computed performance results, Z statistics, and other calculations using Qwest provided raw data to computed performance results, Z statistics, and other calculations using Functionality Test data captured by the Pseudo-CLEC. Discrepancies in the calculations were evaluated, documented and reported by CGE&Y.
- Problems or issues identified during the statistical evaluation of the Functionality Test were entered on IWOs and forwarded to the TAG for Qwest to investigate, respond and take corrective action if necessary.

2.1 Pre-Ordering

2.1.1 Introduction

Pre-ordering is the process by which CLECs query Qwest databases to verify or obtain the information necessary to prepare and issue a valid LSR or ASR. Pre-order test activities included monitoring the ability to access, and the functionality provided by, Qwest's IMA-GUI and EDI systems while the Pseudo-CLEC performed queries to obtain customer information as defined by the test case. Testing provided the opportunity for the assessment of the ability of these systems to gather information for the various types of orders.

2.1.2 Scope

In accordance with Sections 4.2 and 4.3 of the MTP, the scope of the pre-order test was to execute the following transactions:

- CSR queries that allow the CLEC to view an end-user's current service record
- Address Verification queries that allow the CLEC to verify service address information, as registered in Qwest's service areas
- Reserve TN function that allows the CLEC to reserve one or more TNs at a verified address
- Service and Feature Availability queries that allow the CLEC to retrieve a list of services and features available on Qwest's serving switch for the verified service address and as allowed by the CLEC's interconnection contract

- Appointment Scheduler functionality that allows the CLEC to view available dates and appointment times for dispatch of field technicians

- Facility Availability queries that allow the CLEC to view whether facilities are available at the verified address, whether dispatch is required for connection of new lines and, if applicable, notification of possible held orders

- Loop Qualifications queries which provide characteristics of the loop (e.g., length, loading) for designed circuits

In addition, the pre-order test verified the appropriateness and timeliness of Reject messages as well as a successful connection to the pre-order system.

2.1.3 Process

CGE&Y used the test scenarios from Appendix A of the MTP to develop test cases,[11] which were then used to create test scripts (see Appendix H). The test scripts incorporated both pre-order and order activities that would have been received from incoming telephone calls from customers. The Pseudo-CLEC or participating CLEC performed the pre-order queries to gather the data necessary to prepare the LSRs.

Pre-order activities included:

- Monitoring pre-order transactions (e.g., address validation, CSR query)

- Monitoring and evaluating the overall performance of the IMA-GUI and EDI systems

- Verification of the expected results against actual results to ensure the objectives were attained as described in Appendix E and G of the MTP

- Validation of the accuracy of the data entered by the Pseudo-CLEC when actual results were different from expected results, and determination if a re-submission was required

[11] CGE&Y Archive File: FT #3 – Test Case Matrix

2.1.3.1 Pre-Ordering Entrance Criteria

The following entrance criteria in Section 3.7.4.3 of the TSD were met prior to commencing the IMA-GUI pre-order test.

CGE&Y Entrance Criteria

Criterion	Completed
Develop test scripts based on data from the test scenarios in the MTP	✓
Create a spreadsheet to document details associated with each test script and expected results	✓[12]
Develop test script forms and provide data requirements using information from completed test script spreadsheets	✓
Collect names and addresses of Friendlies from the End-User Team	✓
Populate Test Scripts with Friendly's name, addresses and other pertinent information about products, features and listings used to generate the test cases assigned to specific test scripts	✓
Receive the number of iterations for each Test Scenario from the Statistical Team	✓
Receive the volume of test scripts to be executed each day from the Statistical Team	✓
Update Test Scripts with execution dates	✓
Provide test scripts to the Pseudo-CLEC	✓
Establish daily update reports transfers to the TA for 911 and OA/DA systems	✓
Establish data flow to Qwest for table updates for blocking directory printing and 911 fallout of pseudo accounts	✓

[12] Pre-order details are captured in the order test script.

Subject Matter Expert (SME) Entrance Criteria

Criterion	Completed
Develop test scripts based on data from the test scenarios in the MTP	✓
Create a spreadsheet to document details associated with each test script and expected results	✓
Develop test script forms and provide data requirements using information from completed test script spreadsheets	✓
Qwest Core Testing Team is available for internal system queries	✓
Names of the point of contacts and order entry personnel at the Pseudo-CLEC Site	✓
Name of the point of contact and support personnel at the participating CLEC locations	✓
Access to Qwest's service ordering reference manuals	✓
Performance measures have been implemented	✓
Daily logs to document observations	✓
Qwest 911 IT SME for update data extracts	✓
Qwest 911 vendor SME for pseudo account maintenance	✓
Qwest operator services SME for blocking table maintenance	✓

Pseudo-CLEC Entrance Criteria

Criterion	Completed

Criterion	Completed
Pseudo-CLEC has the ability to send and receive transactions through Qwest gateways	✓
Daily Schedule for all tasks to be performed on a given date	✓
Validation that the Pseudo-CLEC is able to collect data. This will be accomplished using transactions performed during the "Readiness Certification" process. During this process, the Pseudo-CLEC will verify that the TA is able to access the Pseudo-CLEC database to extract the elements required for analysis	✓
Test data elements available in the databases	✓
The Performance Measurement Evaluation process has been successfully passed for all relevant Performance Measures. The TA will organize Functionality Testing into a number of test phases by mapping Test Cases/Scripts to Performance Measures that have successfully passed the process audit. Testing can then begin for Test Cases/Scripts that map only to Performance Measures that have passed the required audits	✓
Test quantities have been identified by the Statistical Team	✓
Email addresses have been established for 911 and OA/DA maintenance processes	✓

2.1.4 Results

CGE&Y identified Qwest system, process, and/or training issues that resulted in the generation of IWOs. The summary of IWOs can be found in Appendix B.

Table 2.1.4a below shows the number of pre-order transactions and average response times by month recorded during functionality testing, separated between IMA-EDI and IMA-GUI interfaces. This data is provided here for informational purposes only and does not exclude

outlying data points. Further detail on PO-1 is provided in Section 2.5.4.1 of this report. An evaluation of PO-1 performance measures is provided in the Final Report Capacity Test.

Table 2.1.4a

Media	Query	Data	Jan 2001	Feb 2001	Mar 2001	Apr 2001	May 2001	Jun 2001	Jul 2001	Aug 2001	Grand Total
IMA-EDI	AAQ	Count	40	38	8	27	88	56			257
		Avg *	50.4	1,244.9	28.4	15.4	17.4	81.2			218.1
	ASQ	Count	39	38	6	39	104	62			288
		Avg	2,009.3	163.9	12.7	17.5	19.8	18.4			307.4
	AVQ	Count	100	295	211	248	186	82		6	1128
		Avg	177.4	16.9	15.7	17.4	32.9	46.5		21.0	35.9
	CFAQ	Count		45	4	67	15				131
		Avg		18.2	16.0	15.7	18.8				16.9
	CSRQ	Count	56	222	207	220	117	31	1	11	865
		Avg	106.4	1,048.6	14.5	16.1	33.1	15.9	21.0	18.2	288.9
	FAQ	Count	71	112	19	71	105	30			408
		Avg	25.5	21.7	19.7	18.7	23.9	32.6			23.1
	SAQ	Count	39	35	1	7	30	11			123
		Avg	24.4	18.3	12.0	17.0	18.4	291.2			44.5
	TNAQ	Count	48	63	12	42	118	62			345
		Avg	23.0	16.3	27.6	16.2	17.8	297.0			68.6
	TNSQ	Count	39	52	9	46	119	57			322
		Avg	20.0	16.3	18.2	16.1	18.3	272.5			62.9
IMA-GUI	AAQ	Count	1	35	38	21	83	62			240
		Avg	3.0	2.7	2.8	2.7	3.5	3.6			3.2
	ASQ	Count	1	32	32	14	43	15			137
		Avg	1.0	1.3	1.6	1.5	2.4	1.9			1.8
	AVQ	Count	37	308	387	302	256	226	16		1532
		Avg	3.3	3.7	4.6	4.3	2.6	3.3	3.0		3.8
	CFAQ	Count		118	15	157	144	122			556
		Avg		7.2	5.9	5.3	6.4	7.7			6.5
	CSRQ	Count	32	233	341	233	164	160	22		1185
		Avg	3.7	5.8	3.7	4.5	2.9	6.0	5.3		4.5
	CTQ	Count			3		4	1			8
		Avg			0.7		1.0	1.0			0.9
	FAQ	Count	1	66	49	31	98	21			266
		Avg	17.0	10.9	20.4	10.0	17.0	17.2			15.3
	RLDQ	Count		9		3					12
		Avg		2.7		3.3					2.9
	SAQ	Count	3	31	31	12	46	6			129
		Avg	7.0	6.7	7.4	8.0	7.1	8.3			7.2
	TNAQ	Count	1	27	46	5	61	39			179
		Avg	5.0	5.3	3.6	1.6	2.3	2.9			3.2
	TNSQ	Count	1	22	42	5	59	39			168
		Avg	3.0	2.0	2.4	0.8	0.7	1.0			1.4
	DLRQ	Count		2		1					3
		Avg		4.0		3.0					3.7

Note: "Avg" = Average Response Time in Seconds

Legend:			
AAQ	Appointment Availability Query	DLRQ	Design Layout Record Query
ASQ	Appointment Selection Query	FAQ	Facility Address Query
AVQ	Address Validation Query	RLDQ	Raw Loop Query
CFAQ	Connecting Facility Assignment Query	SAQ	Service Availability Query
CSRQ	Customer Service Record Query	TNAQ	Telephone Number Assignment Query
CTQ	Cancellation Query	TNSQ	Telephone Number Select Query

The following observations were made during the pre-order testing:

The address search criteria in IMA-GUI does not provide adequate information for a Data Local Exchange Carrier (DLEC) to lock in an end user's address for a loop qualification. (AZIWO2117) This IWO will be retested.

During pre-order address validation using IMA-EDI, the Pseudo-CLEC encountered an error message. Validation of the same address via the IMA-GUI was successful. (AZIWO1089)

During the pre-order address validation test it was determined that IMA-GUI did not properly handle address ranges. The Pseudo-CLEC implemented a manual work around to populate the apartment field on the order to complete the test. (AZIWO1047)

Exit Criteria

The following exit criteria specified in Section 3.7.4.5 of the TSD were met prior to completing the IMA-GUI pre-order test:

Criterion	Completed
Pre-order data entry corresponds to test script data	✓
Pre-order responses match the expected results defined for each test script	✓[13]
Interface and system errors have been identified and testing incidents have been handled in accordance with the Testing Incidents Process (Appendix I)	✓
All Test Scripts have been completed	✓
All daily logs have been completed	✓
All performance benchmarks and parity requirements have been achieved in accordance with the Functionality Test Evaluation section of this document [TSD]	✓[14]

[13] IWOs were issued where expected results were not achieved
[14] This criterion has been met because benchmarks and parity requirements have been established for the Functionality Test evaluation.

2.2 Ordering/Provisioning

Ordering is the process that consists of the submission and acceptance of the CLEC's LSRs or ASRs to Qwest.

Provisioning consists of the processes that Qwest uses to install the service or facility ordered, or otherwise implement the CLEC order. It includes all associated transmission, wiring, and equipment necessary to provide service to an end user.

2.2.1 Introduction

The Functionality Test for ordering and provisioning involved the transmission of LSRs from the Pseudo-CLEC via IMA-GUI and EDI, including the receipt of Qwest responses by the Pseudo-CLEC, and provisioning of the service by Qwest.

2.2.2 Scope

As described in Section 3.7.5.1 of the TSD, the scope of the Functionality Test for ordering and provisioning activities encompassed the following:

- Testing of Qwest's interfaces and order entry systems to validate the ability to receive LSRs via EDI, IMA-GUI and FAX as prescribed in the MTP
- Transmission of multiple order types by the Pseudo-CLEC to Qwest, including new installation, conversion as specified, conversion as is, change, suspend, restore, disconnect, cancellation (supp-to-cancel) orders and 911/DA database updates as required
- Qwest's transmission of Acknowledgements (EDI), Rejects, Jeopardy Notifications, FOCs, and SOCs to the Pseudo-CLEC
- Validation that each order was provisioned as specified in the order
- Processing of flow-through and non flow-through orders (i.e., those accepted by the Service Order Processor (SOP) and those needing human intervention in order to create the internal Qwest service orders)
- Daily reporting of test status including:
    - Number of tests run to date by category
    - Number of orders passed to date by category

- Number of orders failed to date by category
- Incidents (IWOs) recorded to date
- Testing incident resolutions received to date (via Performance Acceptance Certificates (PACs) from Qwest)
- Re-tests performed on PACs to date
- Passed re-tests and failed re-tests (orders still in progress were not included on the reports, but were tracked)
- For coordinated requests, determination if Qwest contacted the Pseudo-CLEC at the appropriate times and provided the appropriate information

2.2.3 Process

The Pseudo-CLEC created LSRs based on test scripts, using the results gathered during the pre-ordering process. Section 3.7.5.4 of the TSD describes the following major activities in the ordering process:

- Monitoring the order entry
- Tracking the progress of the orders
- Validating that the services were provisioned

These major activities are described below:

Monitoring

During the execution of the test scripts, CGE&Y had representatives on-site at the Pseudo-CLEC Order Entry Desk location. CGE&Y observed order entry methods, training effectiveness, and interactions between the Pseudo-CLEC and Qwest and documented unexpected results in IWOs.

If an LSR submission failed, the Pseudo-CLEC personnel compared the test script to the details entered on the LSR. If the failure was due to input error, the Pseudo-CLEC re-entered the data correctly. If the data were correctly entered but the LSR failed, the test script was forwarded to CGE&Y for further investigation. CGE&Y either

- corrected and resubmitted the script,
- cancelled the test case and replaced it with another test case of the same scenario (test cases were only cancelled when an error occurred

in generation of the script or a Friendly withdrew their participation), or

- issued an IWO when the failure could not be explained.

Tracking

Each test script was monitored by use of a tracking number assigned by CGE&Y. The tracking number was used by the Pseudo-CLEC to report order status to CGE&Y. CGE&Y used the tracking number to monitor the progress of each test case throughout its lifecycle. The Pseudo-CLEC and the participating DLEC provided CGE&Y with LSR, EDI Acknowledgement (ACK), FOC, Reject and SOC information on a daily basis. CGE&Y retained the data and provided statistics on the timeliness of Qwest order processing.

The TSD anticipated daily test status reports prepared from this information and transmitted to the ACC, and subsequently to the TAG at the ACC's discretion. To allow CGE&Y time to analyze the data received, however, the parties agreed that a bi-weekly, two week delayed, report be provided to the TAG CLECs.

When the test case involved a participating CLEC, CGE&Y monitored and documented the Pseudo-CLEC LSR processing to Qwest, and sent the Provisioning Request Form (PRF) (see Section 3.2 of Appendix F) to the participating CLEC to notify it of the due date.

Friendlies Service Validation

CGE&Y notified Friendlies of the scheduled due dates for orders at their locations. The Friendlies reported whether or not their services were installed on the due dates. If service was not available on the due date and:

- no order jeopardy had been received, the Friendly would report to CGE&Y when the service was installed.

- a non-facilities jeopardy had been received, a supplemental order was issued to establish a new due date and the customer was informed.

- an order completion had been received, a trouble ticket was opened and recorded as an unplanned trouble.

Service Validation

The TSD anticipated accessing Qwest's switch and comparing feature/functionality via the IMA-GUI M&R Feature Availability function. As this method was not feasible, CGE&Y achieved service validation by having Friendlies use the features to test their operability. In addition, CGE&Y validated that the services and features ordered were accurately reflected on the bill.

Service validation was achieved for test cases involving a participating CLEC by having CGE&Y act as a representative of the Pseudo-CLEC. CGE&Y coordinated all test and turn-up activity between Qwest and the participating CLEC to ensure blindness, and recorded the results.

Cooperative Loop Testing

The purpose of cooperative loop testing was to determine if each loop using the participating CLEC facilities to the customer location was provisioned as ordered, thus enabling end-to-end testing. All testing performed by the participating CLEC was coordinated and monitored by CGE&Y, and the results were documented for each order by CGE&Y (see Appendix G for example).

According to Section 3.6(a) of the TSD, CLECs that participate in the testing effort by providing collocation facilities were also responsible for allowing certain tests to be monitored by CGE&Y. CGE&Y, the Pseudo-CLEC, and a participating CLEC agreed on the process for cooperative loop testing (see Appendix F) during a series of conference calls.

Cooperative loop testing was applied to the provisioning of new UNE-L, conversions, UNE-P to UNE-L conversions, new UNE-L with LNP, and stand-alone LNP test cases. Participating CLEC collocation cages at specific Qwest locations were identified and provisioned.

In preparation for cooperative loop testing, CGE&Y acquired a list of participating CLEC facilities and pre-provisioned TNs at collocation sites. These facilities covered 13 different Qwest Central Office (CO) locations.

During the execution of the test scripts, the following additional CGE&Y activities were performed, which were unique to cooperative loop testing:

- Upon receipt of FOC sent PRF to the participating CLEC for switch activation

- Coordinated participating CLEC turn-up activities for coordinated hot cuts (CHC)
- Performed test calls before and after conversion involving LNP to verify porting
- Received PRF from participating CLEC to document test results

2.2.3.1 Order/Provisioning Entrance Criteria

Per Section 3.7.5.3 of the TSD, prior to commencing the Functionality Test for order entry and provisioning, the following entrance criteria were met:

Criterion	Completed
All Order and Provisioning Performance Measurements have been tested and successfully passed.	✓[15]
Receive the number of iterations for each Test Scenario from the Statistical Team	✓
All pre-order entrance criteria have been met	✓
Sufficient Pseudo-CLEC and Qwest resources available to process the test scripts as scheduled based on statistical volume projections	✓
Friendly volunteers are available to begin testing	✓
Collocation assignments have been established at the CLEC demarcation points in Qwest and end offices	✓
Adequate procedures for monitoring Pseudo-CLEC activities have been established	✓
Test scripts have been completed and are ready to be delivered to the Pseudo-CLEC by the TA	✓

[15] See Performance Measurement evaluation in Section 2.5

2.2.4 Results

CGE&Y identified Qwest system, process, and/or training issues that resulted in the generation of IWOs. The summary of IWOs can be found in Appendix B.

The following table displays the products tested and the number of orders issued for each product cell to meet the sample size requirements specified in Section 9.2 of the TSD:

Product Cell #	Scenario	Product	Number of Orders issued
1	UNE-Loop Planned 140 Issued 198	Install UNE-Loop Single Business Line	12
		Install UNE-Loop Multiple Business Lines	8
		Convert Retail to UNE-Loop Single Business Line	33
		Convert Retail to UNE-Loop Multiple Business Lines	10
		Change UNE-P to UNE-Loop Single Business Line	51
		Change UNE-P to UNE-Loop Multiple Business Lines	4
		Change CFA (Connecting Facility Assignment)	12
		Change Due Date	16
		Cancel UNE-Loop Order	23
		Disconnect UNE-Loop Single Line	14
		Disconnect UNE-Loop Multiple Lines	15
2	Business POTS Install (Resale) Planned 140 Issued 198	Install Single Business Line	105
		Install Multiple Business Lines	17
		Disconnect Single Business Line	43
		Disconnect Multiple Business Lines	33
3	Business POTS Conversion (Resale)[16] Planned 140 Issued 125	Convert Retail to Resale Single Business Line	81
		Convert Retail to Resale Multiple Business lines	37
		Migrate Retail to Resale	7
4	Private Lines Planned 50 Issued 61	Install Private Line	2
		Convert Retail Private line to Resale	59
5	ISDN – ADSL Planned 50 Issued 81	Install new ADSL-qualified UNE loop	3
		Convert retail to ADSL-qualified UNE loop	3
		Convert single line retail to DSL	22
		Install new Resale ISDN	15
		Convert Retail ISDN to Resale ISDN	21
		Change features on Resale ISDN	8

[16] Deficiency in the number of business qualified addresses prevented the execution of sufficient tests to meet the number planned.

Product Cell #	Scenario	Product	Number of Orders issued
		Disconnect ADSL-qualified UNE-Loop	3
		Disconnect ISDN	6
6	UNE-P Rural[17] Planned 140 Issued 119	Convert Retail Single Business line to UNE-P	16
		Convert Resale to UNE-P Single Business Line	11
		Convert Resale to UNE-P Single Residence Line	35
		Convert Retail to Resale Single Business Line	12
		Convert Retail to Resale Single Residence Line	45
7	UNE-P Conversion Planned 140 Issued 229	Convert Retail to UNE-P Single Business Line	6
		Convert Retail to UNE-P Multiple Business lines	9
		Convert Retail to UNE-P Single Residence Line	40
		Convert Retail to UNE-P Multiple Residence Lines	15
		Convert Resale to UNE-P Single Business Line	25
		Convert Resale to UNE-P Multiple Business lines	18
		Convert Resale to UNE-P Single Residence Line	42
		Convert Resale to UNE-P Multiple Residence Lines	18
		Change features on Resale UNE-P	12
		Change PIC/LPIC	2
		Change Directory Listing	3
		Outside Move	1
		Disconnect UNE-P Single Line	26
		Disconnect UNE-P Multiple Lines	12
8	UNE-P Install Planned 140 Issued 140	Install UNE-P Single Line	127
		Install UNE-P Multiple Lines	13
9	Residential POTS Install (Resale) Planned 140 Issued 188	Install Single Residence Line	84
		Install Multiple Residence Lines	36
		Disconnect Single Residence Line	36
		Disconnect Multiple Residence Lines	32
10	Residential POTS Conversion[18] (Resale) Planned 140 Issued 136	Convert Retail to Resale Single Residence Line	90
		Convert Retail to Resale Multiple Residence Lines	46
Other	Scenarios Outside the Product Matrix Planned 47 Issued 92	Convert Retail CENTREX to Resale CENTREX	34
		Disconnect Resale Centrex	4

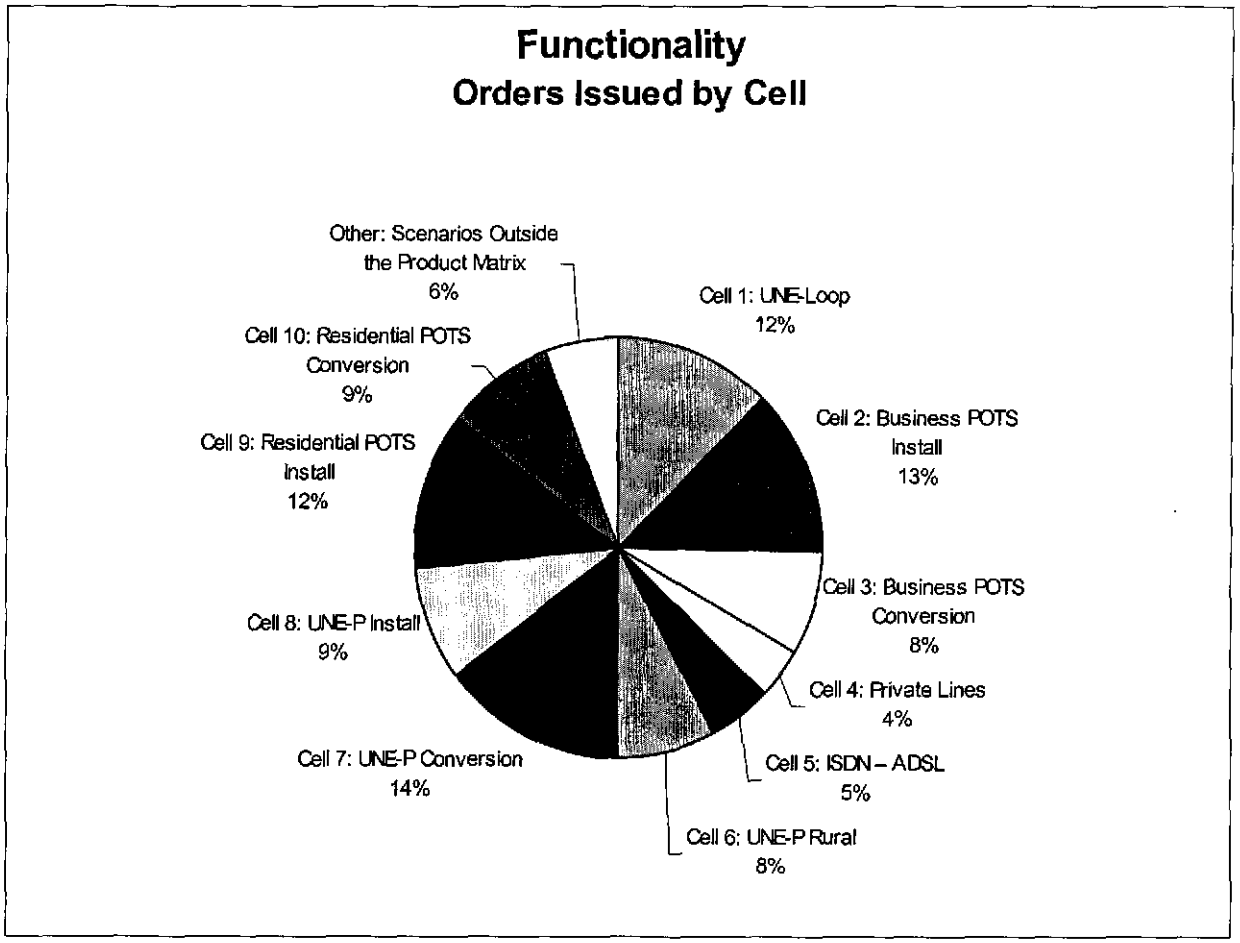
[17] Deficiency in rural friendly addresses prevented the execution of sufficient tests to meet the number planned.
[18] Friendly participation declined at the end of the test.

Product Cell #	Scenario	Product	Number of Orders issued
		Convert Retail PBX to Resale PBX	27
		Add/Remove Feature(s) on Resale PBX	2
		Disconnect Resale PBX	1
		Change of Directory Listing	14
		Disconnect Retail and port TN	10
Total Order Issued			1567

The total test case population illustrated in the preceding table displays a likely mix of products and order activity that would be generated by a start-up CLEC.

Figure 2.2.4a presents the information from the preceding table, illustrating the percentage of test cases executed for each product.

Figure 2.2.4a



Emerging Services Test Results

In early March 2001, the TAG initiated discussion on the testing of Emerging Services based on FCC comments. The TAG agreed that CGE&Y should evaluate the services listed below. These services are not included in the preceding table.

- Enhanced Extended Loop (EEL)
  Description - A dedicated circuit originating at a CLEC collocation site within an ILEC CO and terminating at a customer's location in the same Local Access Transport Area (LATA). The EEL is a combination of loop and interoffice facilities and may also include multiplexing and concentration capabilities.

Evaluation – Numerous inquiries were made by the Pseudo-CLEC to obtain the process to order EELs through their account manager, and to obtain on-line documentation. CGE&Y and the Pseudo-CLEC understood that an ASR was required to order an EEL. Due to the Pseudo-CLEC not being certified to process ASRs (see section 3.2 of the MTP), no EELs were ordered. Qwest updated their IMA User's Guide and provided detailed directions for issuing EEL orders with an LSR and the process is being reviewed for retest.

- Unbundled Dedicated Interoffice Transport (UDIT)
  Description – A network element consisting of a single transmission path between Qwest end offices, serving wire centers or tandem switches in the same LATA and state. A UDIT can also provide a path between one CLEC in one Qwest wire center and a different CLEC in another Qwest wire center.
  Evaluation – The Pseudo-CLEC was not certified to process ASRs, therefore no UDITs were tested.

- Unbundled Sub-Loop
  Description – ILEC owned cabling serving multi-unit addresses.
  Evaluation – Test cases were not executed due to the lack of a participating CLEC with network facilities to an address with ILEC owned cable.

- Unbundled Dark Fiber (UDF)
  Description – A deployed, unlit pair of fiber optic cable or strands that connects two points within Qwest's network.

  Evaluation – The ordering of UDF from Qwest is a manual process involving the submittal of a UDF availability form. The Pseudo-CLEC tested the ordering process for UDF via the following steps:

  1) Information on ordering was requested and received from the account manager. This information included the process instructions emphasizing that it was a manual process up to and including billing. A three page ordering form, "Unbundled Dark Fiber Availability Inquiry," was also supplied via e-mail and was requested to be returned via email.
  2) On 8-8-01 the Pseudo-CLEC ordered two fibers between the PHNXAZMA/nn2 and PHNXAZNO/nn1 collocations.
  3) On 8-13-01 the Pseudo-CLEC was notified by their account manager that two fibers had been reserved in Arizona for

UDF Inter-Office Facilities (IOF) on Billing Account Number (BAN) # B11D003.

4) The request was then cancelled by the Pseudo-CLEC.

The UDF ordering process was accomplished as described by the Pseudo-CLEC's account manager. Documentation of this test case is found in file FT#11, Dark Fiber.

- Line Sharing:
  Description – The provisioning of advanced data services simultaneously with an existing end user's analog voice-grade (POTS) service on a single copper loop. The data service is provided by using the frequency range above the voice band on the copper loop.

  CGE&Y, with the assistance of COVAD, attempted to install DSL service at 29 service addresses. CGE&Y provided the addresses to COVAD who initiated the service requests through one of their Internet Service Providers (ISPs). Of the 29 addresses, LSRs were submitted and FOCs were received for six service addresses. The remaining 23 attempts received normal error messages or the loop was disqualified (distance too far from the CO) for DSL service. Appendix K provides details of the 29 service requests as provided by COVAD at the request of CGE&Y.

  The following table contains information that was submitted for the successful LSR requests:

CGE&Y Tracking Number	COVAD Order Number	COVAD Service Requested	Data Speed Requested	Telephone Number (Voice Line)	Address	Install Date
XDSL175001	1287595 1274947	TeleSurfer ADSL	608 Kbps	480-736-[Redacted]	[Redacted] W. Broadway Ste [Redacted] Tempe AZ 85282	6-14-01 and 6-22-01
XDSL175002	1274965 1287554	TeleSurfer Pro ADSL	1536 Kbps	480-736-[Redacted]	[Redacted] W. Broadway Ste [Redacted] Tempe AZ	6-13-01

CGE&Y Tracking Number	COVAD Order Number	COVAD Service Requested	Data Speed Requested	Telephone Number (Voice Line)	Address	Install Date
					85282	
XDSL175003	1274976 1287522	TeleSurfer ADSL	608 Kbps	480-736-[Redacted]	[Redacted] W. Broadway Ste [Redacted] Tempe AZ 85282	7-6-01
XDSL175004	1287493 1287554	TeleSurfer Pro ADSL	1536 Kbps	480-736-[Redacted]	[Redacted] W. Broadway Ste [Redacted] Tempe AZ 85282	6-13-01
XDSL175005	1287451	TeleSurfer ADSL	608 Kbps	480-736-[Redacted]	[Redacted] W. Broadway Ste [Redacted] Tempe AZ 85282	6-13-01
XDSL175006	1279363	TeleSpeed	144 Kbps	480-967-[Redacted]	[Redacted] West LaJolla Drive, [Redacted] Tempe AZ 85282	cancelled due to no facilities

*****(Note CGE&Y reviewing the details of these tests)

In addition, the following Friendly and CGE&Y employees' addresses were used to perform loop qualification queries for line share service. The results of those queries are listed below:

XDSL175001 – ADSL request for [Redacted]

The loop qualification for [Redacted] W. LaJolla Drive was 21KF. This loop length disqualifies the location from DSL service

because it is beyond the maximum distance for ADSL service. When the raw loop data (RLD) tool pre-order query was used, the service could not be pulled by TN but could be accessed by address. (AZIWO1124)

XDSL177001 – ADSL request for [Redacted]

The loop qualification for [Redacted] S. Alma School Rd. in Mesa was 22KF. This loop length disqualifies the location from DSL service because it is beyond the maximum distance for ADSL service. When the RDL pre-order query was used, the service could not be pulled by TN but could be accessed by address. The number accessed was not the primary line and only the main billing number is tabled in PREMIS. (AZIWO2117)

XDSL177002 – ADSL request for [Redacted]

The address [Redacted] E. Southern Ave. was not found in Qwest's databases. The loop information was found via a TN search. The loop was out of limits for DSL service.

XDSL177003 – ADSL request for [Redacted]

The RDL tool identified a loop of 15KF but the MLT loop length was 25.3KF. When accessed by the address, the loop read 5.5KF with no loads and the MLT distance was 8.30 KF. The loop was out of limits for DSL service.

XDSL177004 – ADSL request for [Redacted]

The RDL query, when accessed by TN, displayed a different address than on the account. No loop information was displayed. When queried by address using the RDL query, the correct account was accessed but the TN did not display. Again, no loop information was available. The wrong address was the result of an old record in PREMIS. (AZIWO1124)

XDSL177005 – ADSL request for [Redacted]

The RDL tool identified a loop of 11KF and qualifies for DSL provisioning. The access was entered by telephone number. The line share request could not be added due to the CSR not being available. (AZIWO1119)

XDSL21SF001 – New install of DSL business service

When the correct address of [Redacted] W. Broadway Ste. [Redacted] was entered a valid range could not be found. A Qwest employee looked up the information in the Qwest systems and found the Broadway entry should have been Broadway RD. Also, the wrong address displayed because the main account number in PREMIS was different than the published number. Unless the main billing number is input, the RDL tool will not display the correct information. Therefore, the DLEC was unable to retrieve the CSR to determine the main billing number.

The results of the loop qualification queries illustrated several problems with the processing from a DLEC location. Those problems are:

The address search criteria obtained from the Friendly was cumbersome to find via the IMA GUI system. The response from the queries displayed address ranges and street names not corresponding to the location provided by the Friendly. (AZIWO2117)

The Friendly directory number could not be accessed via the IMA GUI loop qualification tool. (AZIWO1124)

CSRs could not be accessed on recently installed services. A CGE&Y employee was used to verify the defect. AZIWO1119 covered this defect as well.

Once the order information was accepted, the installations observed at the CGE&Y office location did meet the completion committed due dates.

- Line Splitting:
  Description – The separation of voice and data traffic to allow the copper loop to be used for simultaneous DLEC data transmission and CLEC provided voice service to the end user.

  Evaluation – No test cases for line splitting were issued as CGE&Y was unable to obtain the support of a participating DLEC. However, at the 9/19 TAG meeting, CGE&Y was requested to evaluate the Qwest order process for line splitting. The results of this evaluation will be in the Final Report.

The following observations were made during the ordering and provisioning of Resale and UNE orders. Where appropriate, an IWO was created. A complete summary of IWOs is provided in Appendix B.

During testing, CGE&Y experienced numerous instances of system tables in Qwest OSS not being properly updated. This prevented the Pseudo-CLEC from submitting orders. After several system table updates, Qwest implemented a process for quality control. (AZIWO1093, AZIWO1129, AZIWO2101, AZIWO1001, AZIWO1017) Retesting results will be reviewed for evidence of problems caused by table update errors.

CGE&Y encountered instances where orders were completed, but CGE&Y was unable to process a subsequent change order until Qwest updated their reseller ID tables. This frequently took three to five business days. (AZIWO2060) This IWO is in retest.

CGE&Y encountered numerous instances when orders were completed, but Qwest did not provide a timely SOC. Of the 1,315 orders that received a SOC, 337 did not receive a SOC at the time of completion. Qwest has identified multiple causes, and has implemented system changes. (AZIWO1045) This IWO will be retested.

During testing it was determined that FOCs are used by Qwest for purposes other than confirming the order. When a CLEC receives a FOC, they expect a Due Date to be confirmed. If multiple FOCs are received changing the status of the order (i.e., Due Date change, Jeopardy condition, Reject message), a CLEC must manually interpret the impact of this status change on the order processing. CGE&Y created several IWOs addressing this issue:

- AZIWO1107: Involved 13 test cases that received an unsolicited FOC with a Due Date change
- AZIWO1114: 1 FOC received with two different Due Dates
- AZIWO1117: A FOC Jeopardy was received, but the Jeopardy detail was not sent until the next day
- AZIWO2115: 4 FOCs were identified (3 after the SOC) where the FOC communication was being used for miscellaneous comments that may or may not require action by the CLEC
- AZIWO2116: The pseudo CLEC received a FOC prior to the complete processing of the LSR
- AZIWO2069: An order was submitted via EDI and a FOC was not received.

During the processing of orders to install new (additional) lines to retail customer locations, CGE&Y observed four occurrences where the customer's existing service was inoperable. For these out-of-service conditions, CGE&Y followed section 2.5.17 of the TSD and instructed the Pseudo-CLEC to open a trouble ticket for the customer. These unplanned trouble reports are reflected in the M&R statistics spreadsheet.[19]

CGE&Y Post-Test Analysis of Participating CLEC Loop Testing

CGE&Y conducted a review of the cooperative loop testing by using the participating CLEC test results. The participating CLEC performed a MLT test using Harris test equipment on each loop and the pass or fail results were provided to CGE&Y for review.

[19] CGE&Y Archive File: FT #7 – M&R Statistics Spreadsheet

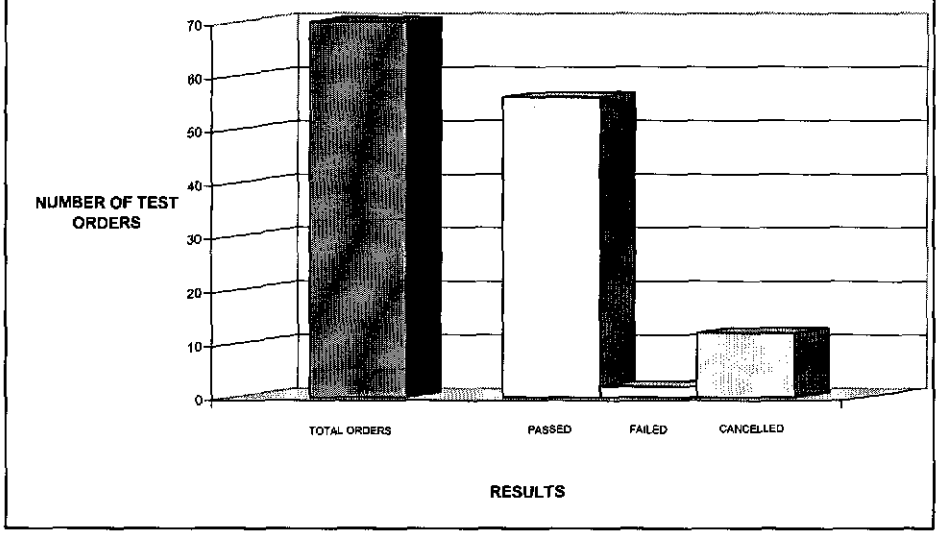
UNE-L Testing

All testing for UNE-L test cases was performed by the participating CLEC. The results were provided to CGE&Y for documentation.

Figure 2.2.4b illustrates results of loop testing for new UNE-L loops:

- 70 total orders were tested
- 56 orders passed all tests
- 2 orders failed and trouble tickets were created (see Appendix F)
- 12 orders were cancelled for various reasons including, customer (Friendly) error and "no loop facilities available."

Figure 2.2.4b UNE-L RESULTS



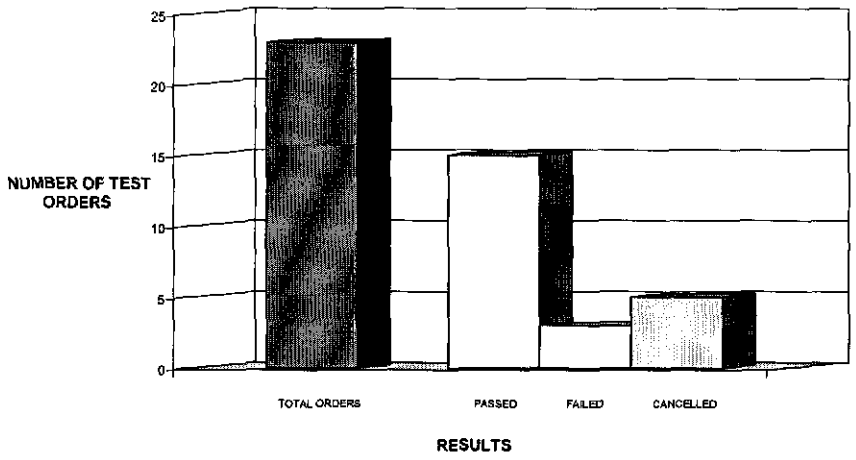
UNE-P to UNE-L Testing

All testing for conversion of UNE-P to UNE-L test cases was performed by the participating CLEC. The results were provided to CGE&Y for documentation.

Figure 2.2.4c illustrates the loop test results of UNE-P to UNE-L loops:

- 23 total orders sent to be tested
- 15 orders passed all tests
- 3 orders failed and trouble tickets were created (see Appendix F)
- 5 orders were cancelled due to various reasons including customer (Friendly) error or "order cancelled by Qwest due to no RMKS (Remarks) relating Disc. new connects on issued LSR."

Figure 2.2.4c UNE-P TO UNE-L RESULTS



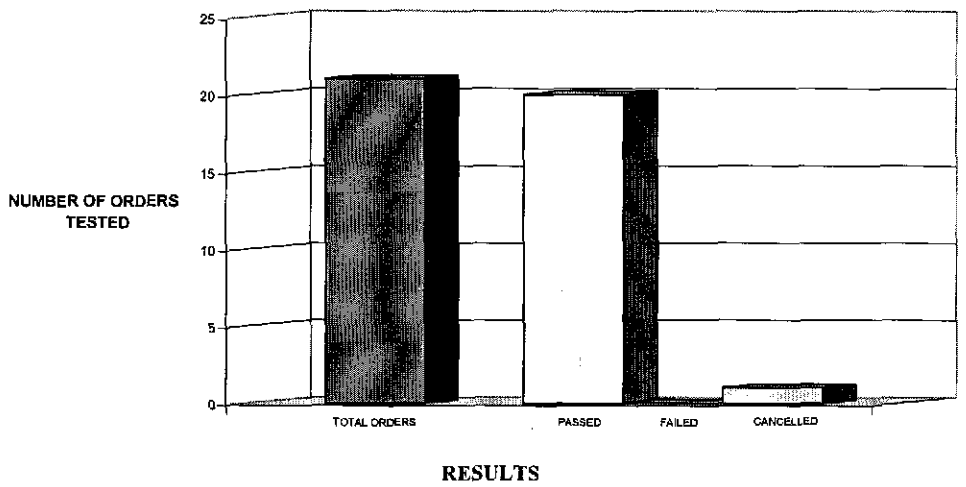
UNE-L with LNP

The participating CLEC performed activation and testing of all UNE-L with LNP at the time of the CHC. The UNE-L portion of the service was tested according to the practice described above. Participating CLEC testing of the ported number consisted of a test call to the TN being ported after the CHC had been completed. The participating CLEC routed the ported number to an internal intercept message to allow verification through the test call that the porting was complete.

Figure 2.2.4d illustrates the results of loop testing for UNE-L with LNP:

- 21 total orders sent to be tested
- 20 orders passed all tests
- 0 orders failed
- 1 order was cancelled due to a Reject received from Qwest stating there were no loop facilities available

Figure 2.2.4d UNE-L with LNP Results



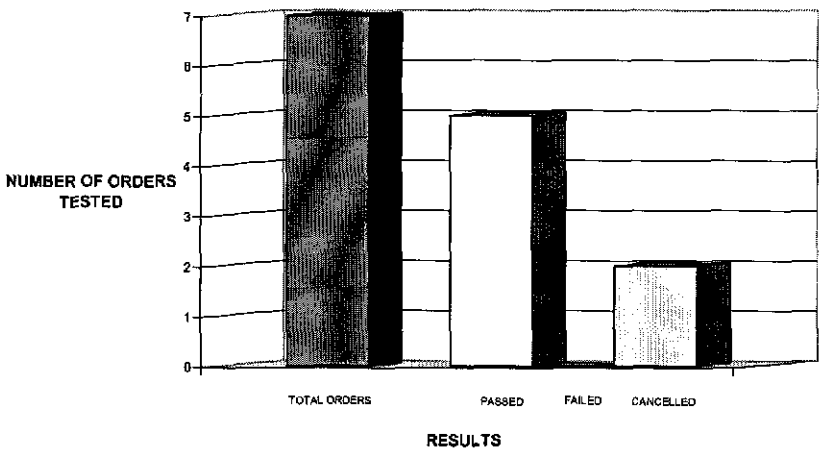
LNP Only

The participating CLEC performed activation and testing of all LNP Only at the time of the CHC. Participating CLEC testing of the ported number consisted of a test call to the TN being ported after the CHC had been completed. The participating CLEC routed the ported number to an internal intercept message to allow verification through the test call that the porting was complete.

Figure 2.2.4e illustrates the loop test results for LNP Only:

- 7 total orders sent to be tested
- 5 orders passed all tests
- 0 orders failed
- 2 orders were cancelled due to customer (Friendly) error

Figure 2.2.4e LNP Only Results



Prior to exiting the Functionality Test for order entry and provisioning, the following exit criteria were met:

Criterion	Completed
The Pseudo-CLEC has successfully executed all test scripts	✓
The Pseudo-CLEC has provided the required data for	✓

Criterion	Completed
each test script to the TA	
Statistics were collected that reflect Qwest's timeliness in processing of order, and the generation of Acknowledgments (EDI), Rejects, FOCs, and SOCs for Pseudo-CLEC LSRs and other provisioning transactions. FOC timeliness for ASRs will also be represented in the collected statistics.	✓[20]
Statistics were collected that reflect the timeliness and accuracy of Qwest's provisioning of requested services	✓
The TA validated that the orders were provisioned as specified	✓
The TA evaluated the results and concluded that all tests are complete	✓
All requirements designated by the MTP were achieved and there are no additional outstanding requirements	✓
The TA has supplied to Qwest a list of all test accounts that have active test circuits connected to enable Qwest to purge its order, provisioning, and billing systems of these test accounts as specified on the exit checklist (Appendix L [TSD])	Pending retest completion
All outstanding incidents were closed in accordance with the Testing Incidents Process (Appendix I [TSD])	Pending retest completion
All performance benchmarks and parity requirements have been achieved in accordance with the Functionality Test Evaluation section of this document (Section 7.3.4 [TSD])	Pending retest completion[21]

[20] The Pseudo CLEC was not certified to issue ASRs during the Functionality Test.
[21] This criterion has been met because benchmarks and parity requirements have been established for the Functionality Test evaluation.

2.3 Maintenance and Repair

2.3.1 Introduction

The test approach for M&R involved the issuance of both planned (induced) and unplanned trouble tickets. CGE&Y assessed the ability of the Pseudo-CLEC to issue, track and close trouble tickets through Qwest's maintenance interfaces.

According to Section 3.7.6 of the TSD, M&R is the function whereby CLECs diagnose and troubleshoot customer-reported troubles, report troubles, open trouble tickets, inquire on the status of trouble tickets, and close trouble tickets. CLECs can perform M&R activities electronically, using functionality provided to CLECs by Qwest via one of the available application options, or via a telephone call to Qwest's Account Maintenance Service Center. Section 3.7.6.1 of the TSD limited functionality testing to the two primary electronic interfaces available for CLEC M&R. These are:

- **Customer Electronic Maintenance & Repair (CEMR)** - a proprietary web-based GUI application designed by Qwest

- **Electronic Bonding - Trouble Administration (EB-TA)** – a gateway interface with associated programming and business rules that allows CLECs to design their own GUIs for conducting M&R activities with Qwest.

CGE&Y produced test scripts for UNE-L, UNE-P, DSL, and Resale accounts. A total of 61 test scripts were executed, 37 in CEMR and 24 in EB-TA. These test cases evaluated the functionality of the M&R interfaces. The parity/disparity evaluation will be established from commercial CLEC aggregation data and is addressed in Section 2.5 of this document.

2.3.2 Scope

Per Section 3.7.6.1 of the TSD, the M&R Functionality Test examined the following elements using both CEMR and EB-TA:

- A CLEC's ability to initiate an MLT on a CLEC-owned line
- A CLEC's ability to electronically generate and submit trouble tickets on lines that were installed during functionality testing
- Qwest's ability to receive CLEC trouble tickets and electronically close the ticket back to the CLEC once the trouble was corrected

- A CLEC's ability to electronically obtain the status of a trouble ticket that was opened through one of the tested interfaces

In addition the M&R test cases were evaluated for the following performance criteria:

- Qwest's ability to meet the commitment dates quoted during the trouble ticket submission process. This was tested using both CEMR and EB-TA
- The average amount of time it takes for Qwest to restore a line that is out of service. This was tested using both CEMR and EB-TA

The M&R Functionality Test simulated CLEC M&R activity when service affecting and non-service affecting conditions occurred. Trouble tickets were issued against test lines established in the Functionality Test.

2.3.3 Process

To test the effectiveness of Qwest's trouble reporting systems, CGE&Y created test scripts that simulated an end-user calling the CLEC to report a trouble condition. During the testing, but prior to reports of line trouble, CGE&Y made arrangements with a Qwest Single Point of Contact (SPOC) to artificially induce service-affecting trouble conditions onto lines established during the Functionality testing. These trouble inducements were performed during testing, rather than before, to assure that the troubles were not detected, and subsequently repaired, through routine systems maintenance. Prior to the execution of a particular test script, CGE&Y sent the contact person a list of telephone numbers or circuit IDs and the types of troubles to be induced.

M&R test scripts, containing all of the information necessary for the successful submission of a trouble report through one of the Qwest interfaces, were delivered by CGE&Y to both the Pseudo-CLEC and the EB-TA participating CLEC's repair center following the inducement of the trouble condition.

Approach

Prior to the initiation of any M&R tests, a number of lines established during the Functionality Test were removed from the normal cycling of orders and designated for use in M&R testing. This eliminated the possibility of the lines being disconnected or otherwise altered during the time period in which the EB-TA or CEMR testing occurred. Once the lines were isolated for use in M&R testing, they were assigned unique M&R test-case tracking numbers.

The following general test procedures were followed during the testing:

- To allow Qwest's line records to be fully updated prior to beginning testing, CGE&Y ensured that all lines tested had been in service for at least five business days prior to trouble inducement.
- To assure that the induced troubles would not be repaired through Qwest's routine maintenance, test cases involving the induced troubles were tested within approximately two weeks of the inducement.
- In the event that circumstances prohibited the desired trouble from being induced on a test line (e.g., a feature to be removed was not present on the line), the Qwest SPOC informed CGE&Y of the affected line(s) and provided an explanation of why trouble could not be induced. In these cases, CGE&Y replaced the unusable line(s) with alternate choices.
- Details of M&R test cases were recorded in an M&R statistics spreadsheet.[22]

CEMR Trouble Ticket Processing

Approximately 61 percent of the M&R test cases were performed using CEMR because of the constant availability (via the Pseudo-CLEC) as compared with the EB-TA application.

The test cases entered through CEMR were made up of two categories of troubles:

- Planned (induced) – Pre-selected test accounts on which specific reportable troubles were intentionally induced

- Unplanned – Any trouble discovered on a test account during the course of the functionality testing. Examples of these troubles include loss of dial tone on the lines, and problems making long-distance calls from the lines installed during testing

CEMR testing consisted of the following steps:

1. CGE&Y prepared M&R test cases using lines installed during functionality testing.
2. CGE&Y issued test scripts to the Pseudo-CLEC containing all information necessary to create a trouble ticket in CEMR.

[22] CGE&Y Archive File: FT #7 – M&R Statistics Spreadsheet

3. For selected test cases, the Pseudo-CLEC initiated an MLT through CEMR prior to issuing a trouble report.
4. After receiving the results of the MLT, the Pseudo-CLEC documented them, and submitted the trouble ticket through CEMR.
5. The Pseudo-CLEC generated a CEMR trouble report simulating a legitimate customer trouble, such as no dial tone.
6. Once the information was successfully received in the Loop Maintenance Operations System (LMOS), CEMR returned a confirmation that the ticket had been successfully submitted.
7. The Pseudo-CLEC documented the date and time of the initial report, and the commitment date and time returned by Qwest.
8. Pseudo-CLEC representatives were listed on the tickets as the contacts for the Qwest technicians who worked the tickets. These representatives fielded all calls from Qwest and answered questions related to the diagnosis and resolution of the tickets. A separate telephone line at the Pseudo-CLEC location was maintained as the contact number for use with M&R testing.
9. Once the CEMR ticket was closed, the Pseudo-CLEC recorded the actual clearance date and time returned by Qwest's systems.
10. The Pseudo-CLEC returned the documentation for the completed trouble ticket to CGE&Y.

EB-TA Trouble Ticket Processing

Prior to the start of testing, Qwest modified the participating CLEC's access to EB-TA to allow them to enter trouble tickets on behalf of the Pseudo-CLEC. CGE&Y and the participating CLEC defined a process for entering and tracking trouble tickets that would not impact the participating CLEC's normal work flows and internal performance metrics reporting. CGE&Y acted as the point of contact to answer calls from Qwest's technicians. The CGE&Y/ participating CLEC trouble ticket process developed for the test was as follows:

1. To create a trouble ticket via EB-TA, a participating CLEC representative created an internal "dummy" ticket called a trouble ticket request (TTR) to provide the gateway to EB-TA. This ticket was exclusively internal to the participating CLEC and was not reported as part of the M&R testing results.
2. The EB-TA ticket to be sent to Qwest was created via the "Create electronic trouble ticket request (ETTR)" tab of the EB-TA system. Information entered on this tab included such things as the TN, address, customer name, trouble code and description, and contact information provided by CGE&Y.
3. The trouble ticket was then transmitted to Qwest by the participating CLEC service representative through the ETTR ticket menu.

4. If the transmission was successful, a message containing the phrase "ticket has been successfully created" was received; if the transmission was unsuccessful, a message was received explaining what information was missing or why the ticket was not created.
5. The service representative printed the information from the TTR ticket that captured all of the data transmitted through the gateway to Qwest and returned to the participating CLEC.
6. Upon successful creation of an EB-TA trouble ticket, the TTR ticket was moved into a participating CLEC test queue and placed on a 30-day customer time clock. This was done to keep participating CLEC representatives not involved in the testing from working the tickets or performing follow-up testing on the tickets. Placing the tickets in the test queue also kept them out of the participating CLEC's internal reporting processes. This step was internal to the participating CLEC and not reported as part of the M&R testing.
7. The EB-TA application generated notes until the TTR was closed.
8. Upon completion of the trouble ticket, Qwest sent notification that the trouble was cleared, followed immediately by another notice stating that the ticket was closed.
9. When the participating CLEC received Qwest's "closed" notice, the TTR ticket information was printed one final time. This printout reflected every transaction that occurred for the ticket, from inception until the date and time Qwest closed the ticket.
10. The participating CLEC then cancelled the TTR, thus eliminating any potential reporting issues created by the TTR. This was only internal to the participating CLEC and did not affect the testing performed by CGE&Y.

Following Section 3.7.6.3 of the TSD, the following criteria were satisfied prior to beginning the Functionality M&R testing:

Criterion	Completed
Test cases using the data from the Test Scenarios in the MTP were developed	✓
A spreadsheet documenting the details associated with each test script and the anticipated results was created.	✓
Information directing the number of test cases and iterations for each test case for each test case was received from the Statistical Team.	✓
A supply of 2-wire loops were created during the Functionality testing and set aside for use in M&R testing.	✓

Criterion	Completed
The test script spreadsheet was populated with end-user names, addresses and trouble conditions needed to generate specific test scripts.	✓
A test schedule was developed based on volume information provided by the Statistical Team.	✓
The test script spreadsheet was updated with execution dates assigned to each test script.	✓
Test accounts successfully provisioned and activated.	✓
The TA, Qwest and the EB-TA participating CLEC coordinated for the use of EB-TA to submit mechanized trouble reports on selected accounts. This included a comparison of the participating CLEC's EB-TA system to Qwest's system specifications to determine what system modifications had to be made in order to accept trouble tickets for Pseudo-CLEC accounts through the participating CLEC EB-TA interface.	✓
Necessary modifications were made by Qwest and participating CLEC to allow trouble tickets for Pseudo-CLEC accounts to be transmitted over participating CLEC's EB-TA interface.	✓
A Daily Log Form was created to record observations associated with M&R Testing.	✓
Maintenance & Repair Performance Measurement process evaluations were successfully passed.	✓
Trouble conditions were appropriately simulated and induced.	✓

2.3.4 Results

CGE&Y identified Qwest system, process, and/or training issues that resulted in the generation of IWOs. The summary of IWOs can be found in Appendix B.

The results of the M&R Functionality Test are grouped by electronic access method, i.e., CEMR and EB-TA.

2.3.4.1 CEMR Results

Of the 37 test cases submitted via CEMR, all but 5 were successfully accepted and Qwest trouble tickets established. The five test cases were rejected by CEMR for a variety of reasons:

- Qwest's database showed that the Pseudo-CLEC did not own the line. (AZIWO2101) This IWO will be considered for retest.
- Tickets not present by CEMR on the Maintain Trouble report screen. (AZIWO2102) This IWO will be retested.
- Tickets appeared corrupted. (AZIWO2103) This IWO will be retested.
- While attempting to execute the MLT process outlined in Section 10.4 of the CEMR User Guide, CGE&Y observed that the function was unavailable. Qwest updated the system database to allow Pseudo-CLEC access. (AZIWO2098) This IWO will be considered for retest.

Commitment time records were kept on 25 of the 32 successfully submitted trouble tickets; the 7 not identified in the average were due to Pseudo-CLEC physical moves. For these 25, the average commitment time given by Qwest to clear the trouble was approximately 9.4 hours, and 76% of the tickets (19 out of 25) met or bettered the commitment times.

MLTs were successfully performed on selected test lines. Additionally, the functionality for electronically requesting the status of an open trouble ticket was successfully tested.

2.3.4.2 EB-TA Results

Twenty-four test cases were successfully submitted to Qwest via EB-TA. Of these, all but one met or bettered the commitment date provided by Qwest for clearing the trouble. MLTs were conducted on each line, and line trouble histories were successfully retrieved for selected test cases.

Additionally, the functionality for electronically requesting the status of an open trouble ticket was successfully tested for all trouble tickets.

The following exit criteria, found in Section 3.7.6.6 of the TSD, were met prior to closing the M&R Functionality Test:

Criterion	Completed
Trouble tickets were created via both CEMR and EB-TA	✓
MLTs were successfully conducted on test lines	✓
Trouble ticket statuses via both CEMR and EB-TA were requested and received, and statuses and results documented on the Daily Log	✓
Trouble ticket closure notifications, including disposition and cause codes, were received	✓
Emergency notification for network events (e.g. switch failures) were received	✓
All Trouble/Maintenance test scripts were executed and passed	✓
Customer trouble histories were successfully retrieved	✓
Performance benchmarks and parity requirements in accordance with the Functionality portion of the MTP were achieved	✓[23]
All Incident Work Orders were properly addressed and successfully re-tested with passing results in accordance with the Testing Incidents Process	✓[24]

2.4 Billing

According to Section 4.3.4 of the MTP, the primary focus of the Billing Functionality Test was to validate the ability of Qwest billing systems to receive input in a timely manner and to process the bills accurately. This test provided data to evaluate Qwest's ability to provide accurate, timely, and complete usage data and billing records to CLECs for the services, features, network items, and

[23] This criterion has been met because benchmarks and parity requirements have been established for the Functionality Test evaluation.
[24] Retest of open M&R IWOs is in progress.

functions that were ordered and provisioned. This test also verified the correct application of documented recurring, non-recurring, usage-sensitive, and miscellaneous charges.

According to the MTP, the testing was to be conducted in a production environment. CGE&Y's expectation was that any Qwest code or system changes would be fully tested and validated prior to introduction into this environment.

2.4.1 Introduction

The billing process is the means by which Qwest provides CLECs with wholesale bills, usage data and records for the services, network elements (e.g., loop) and features that are ordered and provisioned. The bills used in this test were produced from the Qwest Customer Record Information System (CRIS). Billing was generated when the order was completed and the order status was changed to SOC.

In accordance with Section 3.8 of the TSD, the Billing Functionality Test involved review and analysis of the following:

- Hard copies of the Resale, UNE-P and UNE-L bills
- Electronic copies of the bills (EDI format)
- Electronic copies of the Daily Usage Files (DUF)

For this document the following terms will be used:

- Recurring charges: charges that repeat each period (standard monthly charges)
- Non-recurring charges: charges that should not repeat (e.g., installation, service order charge, set-up charge, prorated amounts)
- DUF: Unrated data feed provided by Qwest that includes information on account usage activity (e.g., Call Return, Directory Assistance, 3-Way Calling)
- Master account: BAN under which all other accounts are billed
- Sub account: individual accounts (end-user level) included in master accounts

2.4.2 Scope

According to Section 3.8 of the TSD, the test determined whether Qwest provides the CLECs with accurate and timely wholesale bills and usage data, including records for services, features, network elements and functions that were ordered and provisioned.

Section 4.3.4 of the MTP and Section 3.8 of the TSD identified the focus for the validation of the bills produced for the test to be verification of the following:

- The bill accurately reflected what was ordered.
- The bills provided accurate recurring, non-recurring, and usage-sensitive charges.
- Rates were applied correctly for each product, service, or element.
- Taxes and surcharges were assessed correctly.
- Discounts and adjustments were performed correctly.
- Prorated amounts were charged accurately according to the disconnect date.
- Disconnects were processed and appeared accurately on the bill.
- DUF were updated accurately. Data contained in the DUF were compared to Friendlies' call logs and Qwest bills.

Although the MTP specified the creation of both Integrated Access Billing System (IABS) and CRIS bills for validation in this test, only CRIS bills were used. The is because the product types billed from IABS are Collocation, Resale Frame Relay, Local Interconnection Service (LIS), Interconnect Port-Local Service, Unbundled Dedicated Interoffice Transport (UDIT), DS1 Message Trunk Ports, and E911 (facility based CLECs only) and were not a part of this test.

2.4.3 Process

As noted in Section 3.8.3 of the TSD, the approach for the bill validation was:

- Qwest assigned the Pseudo-CLEC at least one monthly bill cycle for issuing bills.
- Qwest provided the bills to the Pseudo-CLEC in two formats, electronic and hard copy. The electronic bills were available for CGE&Y to access within 24 hours of receipt by the Pseudo-CLEC; the hard copy bills were forwarded to CGE&Y within 72 hours of receipt by the Pseudo-CLEC.
- The bills were analyzed to verify that they were correct and accurate.
- Qwest made the usage files available to the Pseudo-CLEC on a daily basis and CGE&Y had access to these files.
- The information contained on the DUF was used to verify that the usage billed was correct and accurate.
- The Pseudo-CLEC received bills from Qwest on a monthly basis, by product. These monthly bills have staggered end dates and are

referred to as bill cycles. The Pseudo-CLEC was assigned to the following bill cycles:

Resale Bills	25th of each month
UNE-L bills	25th of each month
UNE-P bills	19th of each month

- Upon receipt of the electronic and hard copy bills from Qwest, the Pseudo-CLEC forwarded them to CGE&Y.
- The bills received and validated were for the time period of January 2001 through June 2001.
- Friendlies' usage was captured daily at the Qwest switches and recorded on the DUF. Upon receipt of the DUF, the Pseudo-CLEC forwarded them to CGE&Y.

End-User Testing

As described in Section 4.6 of the MTP for End Users the following procedure was used. CGE&Y instructed Friendlies to perform, and record, on Call Detail Logs (see Appendix C) certain activities that resulted in the generation of usage records. These activities were recorded on the DUF by Qwest and sent to the Pseudo-CLEC who forwarded them to CGE&Y. These records were tracked in the DUF and validated against the bills.

Billing Inquiry Process

As described in Section 2.2 of the MTP, Qwest provided SMEs to assist CGE&Y during this testing in test definition, root cause analysis and other tasks requiring in-depth knowledge of, and experience with, Qwest's OSS and associated methods and procedures.

CGE&Y documented and sent issues to Qwest in the form of Data Requests (DRs). These requests were sent to the identified Qwest representative via e-mail. The Qwest SMEs researched the requests and reported the findings back to CGE&Y using DR responses. The Qwest response was returned to CGE&Y via e-mail with the answer included below the original request. DR responses that identified Qwest systems problems, process changes and/or improvements, and DRs that remained open as of 9/1/01 resulted in the issuing of IWOs that were referred to Qwest for resolution.

Bill Validation

The validation activities focused on the review of the electronic and hard copy output of the billing system as well as the DUF provided to the

Pseudo-CLEC. CGE&Y validated the test results in a controlled manner pursuant to the procedures specified in Section 3.8.3 of the TSD.

When the hard copy of bills was received, CGE&Y

1) performed a visual inspection of the bills,
2) reviewed the CSR to determine if it matched the test order, and
3) validated the current month's bills against the previous month's bills.

The following activities were included in the validation:

- Validation of master account information, e.g., name, address
- Validation of sub-account information, e.g., name and association with correct master account
- Validation of date ranges for billing activity
- Validation of balances carried forward
- Comparison of DUF records to billed usage
- Verification that the billable records from the DUF were correctly reflected on the bill by comparing the billed usage to the DUF
- Validation of usage on the Resale bills to determine that it appeared on the correct account, the correct bill month, and that the calculations were correct. For the UNE-P bills, the usage was provided as a summary item at the account level (single line item). The charge for the usage amount was verified
- Validation of the charges against the rates as provided in the ICA for the Pseudo-CLEC
- Validation of discounts against the appropriate tables provided by Qwest or against the rates/discounts identified in the Pseudo-CLEC ICA
- Comparison of charges against the ICA to verify fees and surcharges

In addition, the billed activity was compared to the test cases and paper LSRs including:

- Validating SOC date to bill date
- Validating products, services, and features

The sections that follow describe the elements that were included in the validation of the bills. Observations and findings are detailed in Section 2.4.4 of this report.

Existing Accounts

For the purpose of this test, "existing account" refers to an account with no service order activity during the period. CGE&Y validated these accounts by comparing the current month's bill against the previous month's bill to determine that the account balance was correct and that the account information had not changed.

Service Activations

For the purpose of this test, "service activations" refers to new accounts or additions of features or services to existing accounts. CGE&Y validated that the

1) features on the bill matched those requested on the LSR,
2) service orders completed within the billing period,
3) prorated amounts were correctly applied, and
4) appropriate recurring and non-recurring charges were applied.

Service Disconnects

For the purpose of this test, "service disconnects" refers to the disconnection of products or services, or the total disconnection of an account. Service disconnects were reviewed to verify the following:

- Disconnects were processed
- Service orders completed within the billing period
- Prorated amounts were correctly applied

If a service disconnect occurred in the same billing period as the service activation, CGE&Y validated that the appropriate charges were applied for the activation as well as the correct credit applied for the disconnect. Also, for one month following the disconnect, CGE&Y further verified that the disconnected service, feature, or account did not appear in the bill cycle. Account and balance information was also checked.

Bill Accuracy

In order to validate that Qwest did provide the Pseudo-CLEC with accurate and timely bills, CGE&Y performed an analysis of the DUF and the bills.

The bills produced were from the CRIS billing system which supported the billing for UNE-P, UNE-L, and Resale. CGE&Y reviewed the format of these CRIS bills as part of the validation of the bill.

For the EDI bills, the electronic version was compared to the hard copy of the bill. CGE&Y verified that the electronic bill contained the same information as the printed bill, appeared in the same sequence, and that the dollar amounts were the same.

Validation was performed on the bill balances to ensure that the totals were correct and the balances transferred from one month to the next were correct.

The timeliness of providing the bills to the Pseudo-CLEC was validated per the guidelines in the ICA. The ICA states that hard copies of the bills are to be shipped to the Pseudo-CLEC within ten days of generation.

CGE&Y reviewed the DUF to verify that the data were included on the correct bill. The DUF data were analyzed at the TN level. The test Friendly Call Detail Logs were analyzed to determine if the call events were included on the DUF and the appropriate records billed.

Order Validation

As part of billing validation, the bill should include all billable service order items. CGE&Y verified that the account information and billable items requested on the LSR were correctly reflected and on the appropriate bill. Comparison of the LSR information to the bill provided the method to validate that account changes were accurately reflected on the bill.

The CSR and LSR were reviewed as part of the order validation process. CGE&Y again reviewed the CSR when the bill was produced. For the first bill or any bills with activity, the LSR was validated to both the bill and the CSR. For subsequent months the CSR was only viewed for discrepancies between the previous bills to the current bill. This was performed in order to validate that the Pseudo-CLEC was being correctly billed for items ordered.

For service activations or disconnects, the billable service order items and account information were validated against the bill. This validation consisted of customer information, items ordered, quantity of items ordered, and review of items not on bills but on order to validate that billing was not required. It was possible to have items on a service order that were not billable and therefore not contained on the bill.

Usage Rates

As used in this test, "usage rates" refers to the amount charged for a product or service used. Usage rates were reviewed to verify that rates were applied correctly for each product or service. The rates were determined by the USOC or for specific items if the item was rated as a per use event. The rate of charge was associated for each USOC by Qwest. CGE&Y validated that the rates charged on each bill corresponded to the rates in the Pseudo-CLEC USOC tables and the published local ICA.

Bill Charges

To validate that the Pseudo-CLEC was billed correctly for recurring, non-recurring, and miscellaneous charges the appropriate bill items were reviewed. The USOC was used to determine the charge applied. When changes were made to accounts, CGE&Y validated that, based on the LSR, the appropriate USOC was added to the account. The valid USOCs and associated rates were provided to the CGE&Y team by Qwest.

Based on the USOC, CGE&Y confirmed that the correct rates were applied and the charges were correct for:

1) Monthly recurring charges
2) Non-recurring charges
3) Miscellaneous charges

Discounts and Adjustments

For the purposes of this document, discounts are defined as related to USOC rates, and adjustments relate to the correction of previously billed charges. CGE&Y determined that discounts and adjustments were applied correctly.

❖ Discounts

The specific discount for each USOC was defined per the local ICA. The specific USOC information provided to CGE&Y by Qwest reflected the amount after discount. There were no actual discounts shown on the bills.

❖ Adjustments

Adjustments were usually made as a result of problems in previous periods for which the Pseudo-CLEC was owed a credit. Although the capability exists for both credit and debit adjustments, only credit

adjustments were encountered in this test. CGE&Y determined whether adjustments to bills for errors from a previous month were correctly made.

Taxes and Surcharges

Per Section 3.8.3 of the TSD, the focus of the taxes and surcharges review was to verify that taxes and surcharges are assessed correctly. The Pseudo-CLEC was established with Qwest as tax exempt. Although the Pseudo-CLEC was tax exempt it was possible for the bills to include a specific surcharge applied. CGE&Y determined whether the taxes and/or surcharges assessed on each bill were accurate and appropriate for the tax-exemption.

Prorated Bills

CGE&Y verified that prorated amounts were properly applied to the bill. The SOC date was the indication to the billing system that a billing activity should occur. When order completions caused less than one month's billing, the amounts were prorated. Prorated amounts were detailed on the impacted sub-account and shown on the master account as a single line item, charge or credit.

As provided by Qwest, the following formula was used to calculate the daily rate for pro-rating charges / credits:

> Tariff rate / 30 days per month * number of active days = prorated amount

CGE&Y validated the accuracy of prorated amounts to the accounts in the following manner:

- For Service Activations, recurring charges were applied only to the portion of the month following the activation (i.e., from SOC date to the billing cycle date). The non-recurring charges were applied effective on the SOC date.

- For Service Disconnects, credits were applied for the portion of the month following the disconnect (i.e., from the SOC date to the billing cycle date).

Per Section 3.8.2 of the TSD, prior to commencing the Billing Functionality Test, the following entrance criteria had to be met:

Criterion	Completed

Criterion	Completed
The Pseudo-CLEC must complete Qwest's customer questionnaire	✓
Receipt of paper copies of the Pseudo-CLEC bills	✓
Receipt of electronic copy of the Pseudo-CLEC bills in EDI format (to be translated by the Pseudo-CLEC)	✓
Daily usage files sent in electronic format	✓
Universal Service Order Code (USOC) rate tables provided by the Pseudo-CLEC	✓
The Performance measurement evaluation of billing measures has been passed	✓
Receipt of sample Qwest IABS (Integrated Access Billing System) and CRIS (Customer Records Information Systems) bills	✓
Validation of how Pre-subscribed Inter-exchange Carrier Charge (PICC) fees are calculated and applied, along with the exact charge associated with each type of fee	✓
A complete list of all applicable billing business rules, including billing increments, minimum and rounding	✓

2.4.4 Results

CGE&Y identified Qwest system, process, and/or training issues that impacted bill accuracy and resulted in the generation of IWOs. The summary of IWOs can be found in Appendix B.

Service Activations

- A Service Activation contained two USOCs with the same description. Qwest investigated and found that the USOCs were valid; however, they were not valid for the type of service of this account. Qwest reported that this error was caused by a service representative who input the incorrect USOC. Qwest advised that an adjustment would be made to a subsequent bill. CGE&Y has not been able to validate this adjustment or to locate a bill for this

account in the file since June. There is no record of a disconnect for this account. (AZIWO1165)

Bill Accuracy

- Qwest is in the process of changing the CRIS bill format, which is used for UNE-P and Resale bills. The presentation of the Summary Page made it difficult to determine that the bill contained complete information. An example was that in one format the Amount Due = Previous Balance on the subsequent; in another format Amount Due is split into totals for the Previous Balance. Since the test was to be conducted in a production environment, the expectation was that the format would have been more consistent. CGE&Y anticipated that customers would have been notified either in writing or via bill message of format changes. (AZIWO1151)

- On a February 2001 UNE-P bill, the Charges and Transferred Balance total did not equal the Total Balance. The problem was discussed with Qwest who advised that the Balance Forward was now split between two totals (Changes and Transferred Balance) and advised CGE&Y on how to validate these totals. CGE&Y was not able to reconcile the difference. The problem was referred to Qwest and is currently under investigation. (AZIWO1167)

- The usage on the Resale bills is itemized. On UNE-P accounts, the usage was summarized into a one-line total. This incongruity was discussed with Qwest and their response was that this is accurate as UNE-P is billed by minutes of use. A follow up question was submitted to Qwest to determine the usage dates for each product type for each cycle. (AZIWO1168)

- Five TNs not assigned to the Pseudo-CLEC were included on the DUF. Qwest investigated the problem and found that the five TNs were incorrectly identified as belonging to the Pseudo-CLEC. Qwest is investigating the cause of this problem. (AZIWO1169)

- Approximately 100 discrepancies were discovered during the comparison of the DUF to the hard copy bills. These discrepancies included usage on the bills but not on the DUF, usage on the DUF but not on the bill, and listed on the friendly Call Detail Log but not on the DUF and/or bill. This is currently under investigation by Qwest. (AZIWO2120)

- In two instances accounts were not on the bill within the bill cycle of the SOC date. In the first case, the SOC was January 4 but it did not appear until the February 19 bill (one month late). In the second instance, the SOC date was February 15 but did not appear until the April 25 bill (two months late). The charges were back-billed to the SOC date. Qwest determined this to be a human error related to transition of work between centers. (AZIWO1182)

- CGE&Y observed inconsistencies in the bill displays for USOC. In most cases the USOC and the description were on the bill but there were cases where only the USOC description was shown. This IWO has been referred to Qwest. (AZIWO1161)

- Requests were made to Qwest beginning in November 2000 for the USOC list, and the USOC's associated rate. The original information provided in December 2000 contained only the USOC and description. Subsequent requests were made during January, February and March. At the end of March a table was provided that included the USOC and rates for Resale only. The USOCs and rates were provided for UNE-L in June. CGE&Y was told by Qwest that the UNE-P rates were similar enough to Resale and to use them and question any differences. Impact: there are no documented rates to validate the bills based on the USOC selected. (AZIWO1181)

- While validating the Payment Due Date, the bill indicated that there was a 22-day payment interval that is not described in the local ICA. The following is the response received from Qwest on 9/19/01:

  "Qwest bills reflect the retail due date which, as is the case for the State of Arizona, is mandated by their State Communications Commission. However, for purposes of collections in our billing offices, the due date is dependent upon individual contracts. The following verbiage is taken directly from our internal documentation, Collections – Live Wholesale: Contract language may appear in the agreement as shown below, but please refer to the individual Interconnection Agreement for language applicable to your customer.

  'Amounts payable under this Resale Section are due and payable within thirty (30) days after the bill date of the Quest invoice.'"

Order Validation

- CGE&Y observed that Qwest is not applying the Federal Access Charge consistently. The Federal Access Charge is a mandatory

charge for all business and residence customers. This is controlled by a USOC based on the class of service. Qwest stated they have provided training for the specific order typist, and also provided channel communication to all service order typists. (AZIWO1153, AZIWO1162)

Discrepancies were found between services billed and services ordered. Qwest responded that service representatives made errors writing internal service orders. Qwest indicated that updates were made to procedures, and retraining was provided. Following are some examples of these errors:

- Three resale accounts were converted incorrectly. (AZIWO1152)
- Two accounts were converted to UNE-L in error. (AZIWO1166)
- CGE&Y observed one account with a double charge for a (NonPublish Service) NPU USOC. (AZIWO1183)
- An account was converted with instructions on the LSR to delete specific features previously active on the account, but these features were not deleted. (AZIWO1163)
- For accounts with No Solicitation USOC, there were inconsistencies in the handling. (AZIWO1154)
- While validating the bill to an order, CGE&Y encountered two sub-accounts with the same TN under one master account number. (AZIWO1157, AZIWO1159)

Usage Rates

- CGE&Y observed that certain USOCs are used for both recurring and non-recurring charges. Qwest is currently working on a software change so that the recurring and non-recurring charges will be applied with a single USOC. Qwest advised this will be implemented in December 2001. (AZIWO1164)

Bill Charges

- The Monthly Service Charge on Service Activations did not include all the recurring charges for the first bill. Subsequent bills included

all the recurring charges. CGE&Y observed that this discrepancy was only associated with the initial Service Activation. (AZIWO1155)

Discounts and Adjustments

Discounts

- There were instances where the USOC SEA (Call Blocking) rate did not match the rate applicable to the Pseudo-CLEC. (AZIWO1186)

Adjustments

- On the January and February bill cycles, adjustments were made to two accounts. There were no itemized details for the adjustments and therefore no way to validate the adjustments made. (AZIWO1156)

Taxes and Surcharges

- A Qwest software change was made in January 2001 that caused various taxes to be charged to tax exempt accounts. Since the Pseudo-CLEC is tax exempt, there should be no taxes charged. Qwest is making software changes to correct this problem. This IWO is still open. (AZIWO1158)

Prorated bills

- CGE&Y could not verify bill prorating when an account was disconnected on Feb 28. CGE&Y was not able to use the calculation provided. Referred to Qwest. (AZIWO1160)

Exit Criteria

Per Section 3.8.4 of the TSD, prior to exiting the Billing Functionality Test, the following criteria were met:

Criterion	Completed
The capture and documentation of billing information provided on the wholesale bills to the Pseudo-CLEC by the TA	✓
The evaluation of the paper and electronic copies of the	

Criterion	Completed
monthly bills for a minimum two-month time period and the electronic copies of the daily usage file on a weekly basis by the TA	✓
The TA's documentation and analysis of the information provided by the Pseudo-CLEC and /or CLEC's billing data	✓
Closure of all outstanding issues logged in the TA Master Issues Log (see Appendix J for the Master Issues Log Process)	✓ In progress
Closure of all issues deemed by the TAG to require Qwest system corrections as documented on Incident Work Orders and processed in accordance with the Testing Incidents Process (Appendix I [TSD])	✓ In progress
The results of the bill validation are documented in the final report to the ACC	✓

2.5 Performance Measurement Test

2.5.1 Introduction

The statistical evaluation of performance measurements calculated from data gathered during the Functionality Test is designed to provide the ACC with a statistically valid assessment of Qwest's performance in providing service to the CLECs based on established performance measures. The Arizona Service PID 6.3 defines those standards set by the TAG that Qwest must meet in order to comply with Section 271 of the Act.

Performance Measures fall into three broad categories: parity, benchmark, and report only. Parity measures compare the performance Qwest provides its competitors to that which Qwest provides to itself, its retail customers, or its affiliates. Therefore, parity measures require that there be an analogous retail service to their wholesale service being evaluated. The retail analog provides the standard for the measurement. Benchmarks define a level of performance for service provided to a CLEC for which there is not an equivalent product or service offered within Qwest. Benchmarks are negotiated between the parties in Arizona and are set at a level intended to allow an efficient competitor a meaningful opportunity to compete with Qwest in the provisioning of telecommunications service. This agreed to benchmark serves as the standard for evaluating performance. The report-only category is provided for those measures that the determined are of interest but are used for diagnostic purposes, often because they back-up or support other performance measures. The report-only category includes measures for which there is not yet sufficient information or the need to set a benchmark. There is no established standard for this type of measures.

During the Functionality Test phase, several test scenarios were developed to produce specific performance data for the use in calculating the performance measures defined in the PID. The calculations will be produced as defined in Section 9 of the TSD. (Statistical Approach)

2.5.2 Scope

Per Section 8.5.3 of the MTP and Section 7.3.4 of the TSD, the Functionality Test Performance Measurement Test encompassed the following activities:

- Collection of Qwest performance measurement raw data (Ad hoc data) for the Pseudo-CLEC, Qwest, and aggregate CLECs

- Development of Functionality Test data captured by the Pseudo-CLEC

- Validation that data observed and captured by the Pseudo-CLEC is accurately reflected in Qwest raw data files

- Independent calculation of all measurements indicated in Appendix C of the MTP for the Pseudo-CLEC, aggregate CLECs, and Qwest retail using Qwest raw data and for the Pseudo-CLEC using Functionality Test data collected by the Pseudo-CLEC according to the statistical approach outlined in Section 9 of the TSD

- Declaration of parity/disparity or pass/fail for all performance measurement results where sufficient data are available

- Comparison of computed performance results, Z statistics, and other calculations using Qwest provided raw data to computed performance results, Z statistics, and other calculations using Functionality Test data captured by the Pseudo-CLEC. Discrepancies in the calculations will be evaluated, documented and reported by CGE&Y

- Problems or issues identified during the statistical evaluation of the Pseudo-CLEC functionality data will be entered on IWOs and forwarded to the TAG for Qwest to investigate, respond and take corrective action if necessary

2.5.3 Process

To test the performance of Qwest's OSS and provisioning services, CGE&Y statistically analyzed Qwest Ad hoc data. To validate these results, CGE&Y reconciled Pseudo-CLEC captured Functionality Test data with Qwest Ad hoc data. Once the source data was verified for content and accuracy, calculations for processes used in the performance measure audit were applied to the Qwest Ad hoc data for the results.

Qwest Ad hoc Data Processing

As described above, CGE&Y evaluated Qwest's provisioning services based on established performance measures detailed in Appendix C of the MTP. These performance measures fall into three broad categories: parity measures, benchmark measures, and diagnostic measures. Furthermore, these measures are identified as a binomial (rate of success) or interval measure.

Parity measures were evaluated based on statistical comparison of Pseudo-CLEC and aggregate CLEC data with Qwest retail data using a one-tailed modified Z-test. In the case of interval measures, log transformations were used to dampen the effect of extraordinary cases that skew the distribution and inflate the standard deviation. For binomial measures, the arcsin-square-root transformation was used to achieve constant variance over the range of possible rates.

Benchmark measures are typically those measures with no retail analog. Standards were established as critical values to the test. Compliance for benchmark measures was determined on a "stare and compare" basis. If the measurement result meets or exceeds the established benchmark value then compliance will have been demonstrated. If the measurement result fails to meet the benchmark, then a condition of noncompliance exists. These comparisons are made using the original, untransformed results. For several benchmark measures, no standard has been agreed upon and are listed as "To Be Determined" in PID 6.3. In these cases, CGE&Y reports the performance measurement results for informational purposes. For interval measures, logarithmic transformations are used.

The Pseudo-CLEC began executing test scenarios for the specific products listed in Section 9.1.2 of the TSD as part of the Functionality Test on December 21, 2000. The Pseudo-CLEC issued its final order on June 29, 2001. This evaluation considers those data disaggregations within the established Qwest reported performance measurement disaggregations. As a result, the desired amounts of iterations were not available for all disaggregations. However, a parity or disparity conclusion is still possible in many cases. In several instances, Pseudo-CLEC data exists for disaggregations not planned in Section 9.1.2 of the TSD as part of the statistical test. To the extent that Pseudo-CLEC data exists in any disaggregation, CGE&Y has provided statistical results.

CGE&Y issued IWOs for all disparities and benchmark failures for the Pseudo-CLEC. Where Pseudo-CLEC data was insufficient for a parity/disparity determination, CGE&Y relied on aggregate CLEC data. However, in those cases where sufficient Pseudo-CLEC data exists and indicates parity, a disparity for the aggregate CLEC results is out of the scope of the Arizona 271 engagement and is associated with the future performance assurance process.

CGE&Y analyzed Qwest Ad hoc data for the period December 2000 through July 2001 using Qwest data processing methods as reflected in Qwest's published performance report of August 7, 2001. Subsequent changes to Qwest data processing methods were incorporated into this analysis where possible.

Functionality Test Data Collection

During the Functionality Test, the Pseudo-CLEC recorded the transmission of LSRs via IMA-GUI and EDI OSS interfaces. The Pseudo-CLEC also recorded responses by Qwest back to the Pseudo-CLEC. The Pseudo-CLEC captured the time and type of transaction received by Qwest (i.e., rejects, jeopardy notifications, FOCs, and SOCs). Using this captured data, CGE&Y was able to construct databases detailing the ordering process.

The Pseudo-CLEC sent one file for each interface during each day of testing via e-mail to the Sedona Data e-mail account setup for this specific purpose. These two files were in two different formats. The IMA-GUI file was sent to CGE&Y in an MS Excel spreadsheet. Each row detailed information for each transaction, including date, time, tracking number, Purchase Order Number (PON), version, status, and due dates. The EDI file was submitted to CGE&Y as a pipe-delimited file with similar information. Once CGE&Y received these two files, the data was converted to a tab-delimited file and read into a database one record at a time. CGE&Y updated the master database table, creating a Functionality Test data database detailing all available information for each individual order. This data was then applied to the Qwest Processed Ad hoc for source data verification.

In addition, CGE&Y processed FOC, reject, and Loss & Completion e-mails from Qwest to the Pseudo-CLEC in order to validate data elements in the Functionality Test data database. Furthermore, the Pseudo-CLEC provided CGE&Y an EDI data feed detailing the same data elements.

Functionality Test Data Reconciliation

The Functionality Test data reconciliation process is designed to validate whether the results Qwest reports in its performance measurements accurately reflect the performance observed by the Pseudo-CLEC. This determines whether Qwest has captured all relevant test data for inclusion in its performance results calculation process and whether Pseudo-CLEC test data are correctly classified as such in Qwest's data. The following activities are involved in the validation process:

- Verify that all notification transactions and completions (jeopardies, rejects, FOCs, and SOCs) in the Functionality Test data appear in the appropriate Qwest Ad hoc data files
- Verify that Qwest Ad hoc data files include all trouble tickets issued by the Pseudo-CLEC

- Record and resolve discrepancies between the Functionality Test data and Qwest Ad hoc data files through data requests and/or IWOs

Functionality Test Data Processing

Section 8.5.3 of the MTP requires the calculation of the same performance measurements calculated from Qwest Ad hoc data using independently gathered data to validate the Ad hoc calculated results (see also Appendix C of the MTP). Exclusions for each performance measurement are defined in the PID; however, many of these are based on data elements not transmitted to the Pseudo-CLEC (I.E. Rate Zones, Exclusions). Thus, Functionality Test data captured by the Pseudo-CLEC are insufficient to calculate the performance measurements. As a result, CGE&Y imported those data elements necessary for PID calculations from the Ad hoc data files. The Performance Measurement Audit evaluated Qwest's compliance in properly implementing these exclusions. (see Performance Measurement Audit – Final Report, dated August 20, 2001)

The calculation of performance measurement results and Z statistics using Functionality Test data were conducted using the same methods and statistical approaches as those used for the Qwest Ad hoc calculations. The performance measurement results and Z statistics from Functionality Test data were compared to those results and Z statistics calculated from Qwest Ad hoc data.

2.5.3.1 Performance Measurement Test Entrance Criteria

In accordance with Section 7.4 of the MTP, prior to commencing the statistical evaluation of the Functionality Test, the following entrance criteria had to be met:

Criterion	Completed
Statistical Approach has been designed	✓
Test orders have been executed by the Pseudo-CLEC.	✓
CGE&Y has received all Ad hoc data from Qwest for the functionality test phase.	✓
CGE&Y has received all Functionality Test Data from the Pseudo-CLEC	✓

2.5.4 Analysis

The results of the statistical analysis of Qwest Ad hoc data and Functionality Test data are presented in the following sections in a series of tables detailing the results for each performance measurement disaggregation where data are available. The following definitions of terms used in the tables will assist in understanding the information communicated by the tables:

d : Number of (retail) standard deviations distance between CLEC and retail in the appropriate transformed scale (log for interval measures and arcsine-square root for binomial measures).

n: The sample size

rd: Risk of concluding parity when there is in fact a material disparity

r0: Risk of concluding disparity when there is in fact (exact) parity

Disparity for interval measures is determined when d > .143 and r0 < = .05

Binomial Rate of Success refers to the proportion or percentage of 'activities done correctly'.

Disparity for binomial measures is determined when d > .0709 and r0 < = .05

Interval measures are measurements based on averages.

2-tail standard Z-test is the terminology used to refer to the classic textbook method for determining if the 'difference in two averages or percents' is statistically meaningful.

Disparity is determined when the chance of observing a difference at least as large as observed, assuming exact parity, is less than or equal to 0.05, and the difference observed is materially meaningful. The lower risk, r0, is presented with the determination.

Standard: The comparison standard for the test results. For those measures with retail analogs, this would be the Qwest retail result which CLEC results are to be compared to. For those measures without retail analogs, this would be the benchmark which the CLEC results are to be compared to.

Parity for interval measures is determined when d < .143 and rd < = .05

Parity for binomial measures is determined when d < .0709 and rd < = .05

Parity is determined when the chance of observing a difference at least as small as observed, assuming material disparity, is less than 0.05 and difference is not materially meaningful. The lower risk, rd, is presented with the determination.

A determination of parity or disparity is not made in certain situations that are denoted as follows:

Insuff Evid: When neither r0 nor rd is less than .2, there is insufficient data to make any determination

Too close: When r0 and rd are within 20% of each other, the situation is considered too close to call, and both risks are presented.

Indeterminate -> DP: When both risks are greater than .05, and r0 < rd, (or equivalently, d > .143 for interval measures or d > .0709 for binomial measures), and the criteria for Insuff Evid and Too Close are not satisfied, then the situation is described as Indeterminate, Leaning towards Disparity.

Indeterminate -> P: When both risks are greater than .05, and rd < r0, (or equivalently, d < .143 for interval measures or d <

.0709 for binomial measures), and the criteria for Insuff Evid and Too Close are not satisfied, then the situation is described as Indeterminate, Leaning towards Parity.

-

In the case of interval measures, results are presented for both the actual data (arithmetic) and the log transformed data (log). This may lead to some confusion for the reader. Qwest provides arithmetic results in its monthly performance reports. However, there are cases where data indicates that the results are in parity when looking at the actual data but are out of parity when looking at the log transformed data. There are other cases where the opposite is true. In many cases the two methods agree.

When the two methods disagree in their outcome it is an indication that the underlying data sets exhibit different measures of spread and skewness. In these cases, the logarithmic result is determinative as per section 9 of the TSD, and is CGE&Y's best determination of whether or not parity or disparity exists. In the following discussions, CGE&Y will primarily focus on the logarithmic results.

2.5.4.1 Qwest Ad hoc Data Calculations

The results of the Functionality Test Performance Measurement Test are detailed and summarized in the following tables and paragraphs:

Pre-Order/Order Response Times

Pre-Order response time (PO-1) measures were calculated in the capacity test. Refer to the Capacity Test report section 4.1.3 for the results.

Electronic Flow-Through (PO-2)

Measure Description:
PO-2 measures the percentage of electronically submitted LSRs that flow from the electronic gateway interface to the SOP without falling out for manual intervention. Flow-through rates are highly dependent on the training and expertise of the CLECs. Significant differences between Pseudo-CLEC and aggregate CLEC results may be due to lack of training. In addition, the nature of Pseudo-CLEC LSRs may be materially different from those issued by commercial CLECs. CGE&Y recognizes that due to requirements of the test, the mix of Pseudo-CLEC issued LSRs, including large numbers of disconnects, may differ substantially from a commercial CLEC. Disaggregations include flow-through percentage for all LSRs and for those LSRs classified as flow-through eligible by interface type. The standard for this measure is a benchmark that has not yet been determined ("TBD"). All results are for informational purposes and for discussion in setting an appropriate benchmark.

Table 2.5.4.1a – PO-2A-1 – Electronic Flow-through for LSRs Received via IMA GUI (Percent)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
LNP	TBD	0.00% n: 5	51.72% n: 23267	N/A	N/A
Resale Aggregate	TBD	13.92% n: 474	55.39% n: 31716	N/A	N/A
Unbundled Loop Agg.	TBD	32.68% n: 153	7.06% n: 6738	N/A	N/A
UNE-P (POTS)	TBD	19.70% n: 198	30.99% n: 284	N/A	N/A

Findings:
No performance standard is available for this measure, therefore no findings are possible.

Table 2.5.4.1b – PO-2A-2 – Electronic Flow-through for LSRs Received via IMA EDI (Percent)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
LNP	TBD	100.0% n: 1	6.27% n: 1004	N/A	N/A
Resale Aggregate	TBD	15.07% n: 438	68.74% n: 7426	N/A	N/A
Unbundled Loop Agg.	TBD	2.25% n: 89	5.35% n: 4918	N/A	N/A
UNE-P (POTS)	TBD	16.52% n: 224	25.00% n: 4	N/A	N/A

Findings:
No performance standard is available for this measure, thus no findings are possible.

Table 2.5.4.1c – PO-2B-1 – Electronic Flow-through for All Eligible LSRs Received via IMA GUI (Percent)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
LNP	TBD		72.76% n: 16538	N/A	N/A
Resale Aggregate	TBD	24.91% n: 265	77.51% n: 22666	N/A	N/A
Unbundled Loop Agg.	TBD	67.57% n: 74	33.33% n: 1428	N/A	N/A
UNE-P (POTS)	TBD	43.82% n: 89	42.11% n: 209	N/A	N/A

Findings:
No performance standard is available for this measure, therefore no findings are possible.

The percentage of eligible LSRs that flow through is the subject of AZIWO2113. Earlier in the test phase, the standard for comparison was parity with Qwest retail. CLEC results were significantly worse than Qwest retail results. Qwest

subsequently changed the standard to "TBD." CGE&Y notes that the large disparity between Pseudo-CLEC and aggregate CLEC flow-through rates for resale can be partially explained by the fact that most of the Pseudo-CLEC data for this product occurred in the January through March timeframe, and flow-through rates have improved substantially in subsequent months. Moreover, because the standard for this measure is "TBD," CGE&Y can not verify that a problem still exists.

Table 2.5.4.1d – PO-2B-2 – Electronic Flow-through for All Eligible LSRs received via IMA EDI (Percent)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
LNP	TBD	100.0% n: 1	30.29% n: 208	N/A	N/A
Resale Aggregate	TBD	64.71% n: 102	90.51% n: 5640	N/A	N/A
Unbundled Loop Agg	TBD	40.00% n: 5	32.03% n: 821	N/A	N/A
UNE-P (POTS)	TBD	50.68% n: 73	33.33% n: 3	N/A	N/A

Findings:
No performance standard is available for this measure, therefore no findings are possible.

The percentage of eligible LSRs that flow-through is the subject of AZIWO2113, however, because the standard for this measure is "TBD," CGE&Y can not verify that a problem exists. (see also, PO-2B-1)

LSR Rejection Notice Interval PO-3

Measure Description:
PO-3 measures the interval between the receipt of a LSR to a rejection notification. Disaggregations include rejected LSRs submitted electronically and returned manually, rejected LSRs submitted and returned electronically, and rejected LSRs submitted and returned manually. The benchmark standards

agreed upon by the TAG for this measure are 12 hours for manual rejects via IMA and EDI, 18 seconds for automated rejects via IMA and EDI, and 24 hours for fully manual rejects. CGE&Y was not provided Qwest raw data for automated rejects. The automated reject data results for aggregate CLECs are based on Qwest's published performance results and includes data from Qwest's entire 14-state operating region. Consequently, no logarithmic results are provided below.

Table 2.5.4.1e – PO-3(A, B & C) – LSR Rejection Notice Interval

Interface	Rejection Type	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
IMA	Manual	12:00:00	Log: 2:24:20 Arith: 6:03:25 n: 118	Log: 1:06:39 Arith: 4:12:11 n: 4110	Pass	Pass
	Auto	0:00:18	Log: 1.89 Arith: 3.28 n: 1232	Arith: 7.70 n: 122239	Pass	Pass
EDI	Manual	12:00:00	Log: 6:45:58 Arith: 12:10:58 n: 181	Log: 1:01:27 Arith: 5:27:45 n: 1333	Fail	Pass
	Auto	0:00:18	Log: 2.27 Arith: 3.83 n: 1236	Arith: 10.65 n:48272	Pass	Pass
Fax	Manual & IIS	24:00:00	See note #1	Log: 9:58:20 Arith: 20:04:08 n: 1723	See note #1	Pass

Note 1: The table cell is vacant due to no available data

Findings:

Performance results demonstrate Qwest is providing CLECs with timely Rejection notices. Pseudo-CLEC results for EDI-received manually rejected LSRs are the only disaggregation in which the standard is not being met for either the Pseudo-CLEC or aggregate CLECs. This performance failure is by only 11 minutes and does not appear to be competitively significant when considered with commercial CLEC results.

Percent LSRs Rejected PO-4

Measure Description:
PO-4 measures the percentage of LSRs submitted that are rejected for standard categories of errors/reasons. Disaggregations include LSRs electronically received/manually returned and electronically received/electronically returned by interface type, and manually submitted/manually returned LSRs. This measure is reported for diagnostic purposes only, therefore there is no applicable standard.

Table 2.5.4.1f – PO-4 – LSRs Rejected

Interface	Rejection Type	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
IMA	Manual	N/A	5.26% n: 2243	6.21% n: 66188	N/A	N/A
	Auto	N/A	55.57% n: 2217	24.31% n: 502800	N/A	N/A
EDI	Manual	N/A	8.36% n: 2226	9.16% n: 14559	N/A	N/A
	Auto	N/A	55.60% n: 2223	19.08% n: 253056	N/A	N/A
Fax	Manual & IIS	N/A	See note #1	13.67% n: 12606	N/A	N/A

Note 1: The table cell is vacant due to no available data

Findings:
No performance standard is available for this measure, therefore no findings are possible.

Reject rates for the Pseudo-CLEC and aggregate CLECs are similar for manual rejects via IMA and EDI. However, automated rejects for the Pseudo-CLEC are significantly higher than for aggregate CLECs. Based on the data supplied to CGE&Y for AZIWO2114, it is the opinion of CGE&Y that the rejects were attributable to Pseudo-CLEC input errors and not attributable to Qwest gateway systems. Therefore, CGE&Y

recommends that aggregate CLEC be used for any performance evaluation.

Firm Order Confirmations (FOCs) On Time PO-5

Measure Description:
PO-5 measures the percentage of FOCs received within the standard interval. This measure is evaluated against a benchmark that has been agreed upon by the TAG. The standard for fully electronic FOCs (PO-5A) is 20 minutes. The standard for electronically submitted and manually returned FOCs (PO-5B) is 24-72 hours depending on the product. The standard interval for fully manual FOCs (PO-5C) is 24 hours plus the standard interval in PO-5B. The standard interval for failed flow-through FOCs (PO-5E) is six hours. This measure is the subject of AZIWO1140. Currently, there is no means of determining if each LSR submitted received a FOC, thereby becoming eligible for inclusion in the calculation.

Table 2.5.4.1g – PO-5A-1 – FOCs On-Time for Fully Electronic LSRs Received via IMA GUI (Percent)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
LNP	95%	See note #1	99.58% n: 12033	See note #1	Pass
Resale Aggregate	95%	100.0% n: 105	99.46% n: 17657	Pass	Pass
Unbundled Loop Agg.	95%	100.0% n: 50	95.17% n: 476	Pass	Pass

Note 1: The table cell is vacant due to no available data

Findings:
Results for fully electronic FOCs via IMA indicate that the Pseudo-CLEC and aggregate CLECs both meet the benchmark for all product types.

Table 2.5.4.1h – PO-5A-2 – FOCs On Time for Fully Electronic LSRs Received via IMA EDI (Percent)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
LNP	95%	100.0% n: 1	98.41% n: 63	Pass	Pass
Resale Aggregate	95%	99.03% n: 103	99.22% n: 5106	Pass	Pass
Unbundled Loop Agg.	95%	100.0% n: 2	96.96% n: 263	Pass	Pass

Findings:
Results for fully electronic FOCs via EDI demonstrate that the Pseudo-CLEC and aggregate CLECs are both meeting the benchmark for all product types.

Table 2.5.4.1i – PO-5B-1 – FOCs On Time for Electronic/Manual LSRs Received via IMA GUI (Percent)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
LNP	90%	100.0% n: 4	97.56% n: 10605	Pass	Pass
Resale Aggregate	90%	90.55% n: 614	97.09% n: 14455	Pass	Pass
Unbundled Loop Agg.	90%	96.63% n: 89	96.14% n: 4146	Pass	Pass

Findings:
Results for electronic/manual FOCs via IMA indicate that the Pseudo-CLEC and aggregate CLECs both meet the benchmark for all product types.

Table 2.5.4.1j – PO-5B-2 – FOCs On Time for Electronic/Manual LSRs Received via IMA EDI (Percent)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
LNP	90%	See note #1	80.15% n: 811	See note #1	Fail
Resale Aggregate	90%	78.23% n: 542	98.06% n: 2315	Fail	Pass
Unbundled Loop Agg.	90%	95.77% n: 71	97.37% n: 1747	Pass	Pass

Note 1: The table cell is vacant due to no available data

Findings:

CGE&Y issued AZIWO2108 regarding the low rate of on time resale aggregate FOCs for the Pseudo-CLEC for electronic/manual FOCs via EDI . However, aggregate CLECs are exceeding the 90 percent benchmark for this disaggregation. In its response to AZIWO2108, Qwest indicated that the performance failure was due to the inclusion of a mix of Centrex and Complex Resale products in the March through June 2001 time period, that are not previously high volume products in the state of Arizona. Qwest also indicated it made system and process improvements to the FOC processes, providing additional focus on the Centrex and Complex Resale products. Due to the fact that commercial CLECs do not presently order sufficient volumes of these products to test Qwest's FOC timeliness, additional testing of Centrex and Complex Resale LSRs will be performed to verify Qwest's system improvements.

There is no Pseudo-CLEC data for LNP, but results for aggregate CLECs indicate a problem exists. CGE&Y issued AZIWO2126 in response to this performance failure. Future commercial results will determine if the issues in AZIWO2126 have been resolved.

The Pseudo-CLEC and aggregate CLECs both meet the benchmark for Unbundled Loop Aggregate.

Table 2.5.4.1k –. PO-5C – FOCs on Time for Manual					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
LNP	90%	See note #1	72.73% n: 110	See note #1	Fail
Resale Aggregate	90%	See note #1	94.89% n: 8692	See note #1	Pass
Unbundled Loop Agg.	90%	See note #1	92.08% n: 101	See note #1	Pass

Note 1: The table cell is vacant due to no available data

Findings:
No Pseudo-CLEC data is available for fully manual FOCs. Aggregate CLEC results fail to meet the 90 percent benchmark for LNP. As a result, CGE&Y issued AZIWO2126. Future commercial results will determine if the issues in AZIWO2126 have been resolved.

Commercial CLEC resale and Unbundled Loop Aggregate results exceed the benchmark.

Table 2.5.4.1l – PO-5E-1 – FOCs On Time for Failed Flow-through LSRs for IMA GUI(Business Hours: Minutes)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
LNP	6 hrs	See note #1	Log: 0:00:40 Arith: 0:54:31 n: 4368	See note #1	Pass
Resale Aggregate	6 hrs	See note #1	Log: 1:48:14 Arith: 4:17:33 n: 4	See note #1	Pass
Unbundled Loop Agg.	6 hrs	Log: 0:05:48 Arith: 1:45:40 n: 13	Log: 0:22:09 Arith: 1:57:20 n: 821	Pass	Pass

Note 1: The table cell is vacant due to no available data

Findings:
Results for the Pseudo-CLEC and aggregate CLECs meet the established benchmark for all products where data are available.

Table 2.5.4.1m – PO-5E-2 – FOCs On Time for Failed Flow-through LSRs for IMA EDI (Business Hours:Minutes)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
LNP	6 hrs	See note #1	Log: 1:02:31 Arith: 7:50:16 n: 123	See note #1	Fail
Unbundled Loop Agg.	6 hrs	Log: 0:03:07 Arith: 0:20:42 n: 3	Log: 1:00:01 Arith: 1:57:21 n: 501	Pass	Pass

Note 1: The table cell is vacant due to no available data

Findings:
Pseudo-CLEC results for Unbundled Loop Aggregate meet the established benchmark. Aggregate CLEC results meet the benchmark for Unbundled Loop Aggregate, but miss the 6-hour benchmark for LNP. In response, CGE&Y issued AZIWO2126. Future commercial results will determine if the issues in AZIWO2126 have been resolved.

Work Completion Notification PO-6

Measure Description:
PO-6 measures the average interval from the time an order is posted as complete in WFA to the time electronic notification is transmitted to the CLEC. Disaggregations are based on interface type (IMA and EDI). The benchmark standard for this measure has not yet been determined.

Table 2.5.4.1n – PO-6A&B – Work Completion Notification (Hours:Minutes)					
Interface	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
IMA	TBD	Log: 2:25:04 Arith: 7:30:00 n: 297	Log: 3:30:31 Arith: 10:05:39 n: 16658	N/A	N/A
EDI	TBD	Log: 2:42:51 Arith: 7:55:40 n: 212	Log: 2:57:33 Arith: 3:57:06 n: 1408	N/A	N/A

Findings:
No performance standard is available for this measure, therefore no findings are possible.

Billing Completion Notification PO-7

Measure Description:
PO-7 measures the percentage of billing completion notifications that are transmitted to the CLEC within four business days of posting in SOP. Disaggregations are based on interface type (IMA and EDI) and the standard for comparison is parity with Qwest retail results.

Table 2.5.4.1o – PO-7A&B – Billing Completion Notification (Hours:Minutes)					
Interface	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
IMA	96.71% n: 1744685	95.57% n: 384	95.34% n: 24572	Parity d=0.030, rd=.000	Parity d=0.035, rd=.000
EDI	96.71% n: 1744685	95.81% n: 191	99.05% n: 3676	Parity d=0.024, rd=.003	Parity d=-.085, rd=.000

Findings:
Pseudo-CLEC and commercial CLEC results for both IMA and EDI interfaces demonstrate parity with Qwest retail results.

Jeopardy Notice Interval PO-8

Measure Description:
PO-8 measures the average time, for those orders placed in jeopardy status prior to the due date, from when the customer is first notified that the order is in jeopardy to the original due date for the order. Disaggregations are based on product type and the standard for comparison is parity with Qwest retail results.

Table 2.5.4.1p – PO-8 – Jeopardy Notice Interval					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Non-Designed	Log: 2.41 Arith: 5.59 n: 9018	Log: 1.91 Arith: 2.42 n: 12	Log: 1.50 Arith: 2.25 N: 153	Log: Insuff Evid d=0.175, r0=.273, rd=.351 Insuff Evid d=0.165, r0=.284, rd=.338	Log: Disparity d=0.348, r0=.000 Arith: Disparity d=0.173, r0=.017
Unbundled Loop and Number Portability	Log: 2.41 Arith: 5.59 n: 9018	Log: 2.30 Arith: 2.33 n: 3	Log: 3.10 Arith: 4.45 n: 189	Log: Insuff Evid d=0.036, r0=.475, rd=.333 Insuff Evid d=0.169, r0=.385, rd=.420	Log: Parity d=-.198, rd=.000 Arith: Parity d=0.059, rd=.001

Findings:

For non-designed services, aggregate CLEC and Pseudo-CLEC jeopardy intervals are significantly shorter than for Qwest retail customers. CGE&Y issued AZIWO2109 for jeopardy notice intervals for non-designed services. Future commercial results will determine if the issues in AZIWO2109 have been resolved.

Pseudo-CLEC data are insufficient for both Unbundled Loop and Number Portability orders. However, aggregate CLEC results demonstrate that CLECs receive jeopardy notification intervals in parity with Qwest retail operations.

Timely Jeopardy Notices PO-9

Measure Description:

PO-9 measures the percentage of orders that miss the original due date that were provided advance jeopardy notification. Disaggregations are based on product type and the standard of comparison is parity with Qwest retail results.

Table 2.5.4.1q – PO-9 – Timely Jeopardy Notices (A/ MA)					
Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Non-Designed	34.72% n: 19517	37.04% n: 27	23.08% n: 468	Parity d=-.024, rd=.030	Disparity d=0.129, r0=.000
UNE-P (POTS)	34.72% n: 19517	0.00% n: 7	0.00% n: 2	Disparity d=0.630, r0=.027	Indeterminate -> DP d=0.630, r0=.151
Unbundled Loop and Number Portability	34.72% n: 19517	100.0% n: 1	48.02% n: 177	Parity d=-.941, rd=.030	Parity d=-.135, rd=.000

Findings:

Pseudo-CLEC results for non-designed services receiving a timely jeopardy notification are in parity with Qwest retail results. Aggregate CLEC results show a significant disparity with retail results. However, this disparity is associated with the future performance assurance process and is out of the scope of the Arizona 271 engagement.

For Unbundled Loop and Number Portability missed due date orders, aggregate CLEC results show that nearly half the time the due date is missed, a timely jeopardy notification was transmitted. Pseudo-CLEC results reveal the only due date missed received prior jeopardy notification. Both indicate that the percentage of jeopardy notifications received by CLECs in advance of the due date is at parity with retail. UNE-P results lack sufficient data to make any definite conclusions. For UNE-P missed due dates, neither the Pseudo-CLEC nor aggregate CLECs received prior notification in any case. This is a disparity for the Pseudo-CLEC. This disparity is the subject of AZIWO2111. It is not possible to test for jeopardy timeliness as jeopardies are not planned. In addition, current commercial CLECs are not experiencing sufficient missed due dates for UNE-P orders to properly evaluate jeopardy timeliness. Qwest only missed two UNE-P installation commitments for commercial CLECs during the functionality test period. CGE&Y finds this persuasive evidence that commercial CLECs are not being competitively harmed by late UNE-P jeopardy notices. However, should Qwest performance for UNE-P installation commitments met decline, CGE&Y recommends reevaluating Qwest's performance for UNE-P jeopardy

timeliness comparing commercial CLEC results against Qwest retail.

Installation Commitments Met OP-3

Measure Description:
OP-3 measures the percentage of installations that are completed by the scheduled due date. Disaggregations include dispatches within MSAs, dispatches outside MSAs, and no dispatches. Designed services are disaggregated by dispatches within Interval Zone One and dispatches within Interval Zone Two. The standard of comparison for this measure is parity with Qwest retail results except for unbundled 2 wire analog loops, which are measured against a 90 percent benchmark.

Table 2.5.4.1r – OP-3A – Installation Commitments Met (Percent) - Dispatches Within MSAs (Y/MY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	91.08% n: 21936	89.58% n: 96	85.24% n: 569	Parity d=0.025, rd=.020	Disparity d=0.091, r0=.000
Centrex 21	89.43% n: 3518		98.18% n: 55	See note #1	Parity d=-.196, rd=.000
ISDN BRS	71.67% n: 180	100.0% n: 1	See note #1	Indeterminate --> P d=-.561, rd=.199	See note #1
PBX	81.90% n: 221	100.0% n: 1	See note #1	Insufficient Evidence d=-.439, r0=.680, rd=.256	See note #1
Residential	95.42% n: 128333	88.89% n: 45	95.60% n: 3000	Disparity d=0.124, r0=.018	Parity d=-.004, rd=.000
UNE-P (POTS)	94.79% n: 150269	95.05% n: 101	85.71% n: 7	Parity d=-.006, rd=.007	Indeterminate --> DP d=0.157, r0=.140

Note 1: The table cell is vacant due to no available data

Findings:
Pseudo-CLEC results for Business installation commitments met are in parity with Qwest retail results. However,

commercial CLEC results are in disparity with Qwest retail results. This disparity is associated with the future performance assurance process and is out of the scope of the Arizona 271 engagement.

Qwest fails to provide the Pseudo-CLEC with parity service for Residential orders. Qwest failed to meet its scheduled installation commitment for 5 out 45 Pseudo-CLEC appointments. Moreover, when considered with commercial CLEC results, which are in parity, CGE&Y finds that Qwest meets residential installation commitments at acceptable levels.

Pseudo-CLEC results for UNE-P installation commitments met are in parity with Qwest retail results.

There are no Pseudo-CLEC data for Centrex 21 installations. Commercial CLEC results are in parity with Qwest retail results.

Table 2.5.4.1s – OP-3B – Installation Commitments Met (Percent) – Dispatches Outside MSAs(Y/ MN)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	89.71% n: 2118	100.0% n: 2	53.85% n: 13	Insufficient Evidence d=-.327, r0=.684, rd=.237	Disparity d=0.420, r0=.000
Centrex 21	87.34% n: 237	See note #1	100.0% n: 2	See note #1	Insufficient Evidence d=-.364, r0=.704, rd=.218
Residential	92.48% n: 13326	100.0% n: 5	93.75% n: 80	Indeterminate --> P d=-.278, rd=.159	Parity d=-.025, rd=.007
UNE-P (POTS)	92.10% n: 15444	100.0% n: 6	See note #1	Indeterminate --> P d=-.285, rd=.133	See note #1

Note 1: The table cell is vacant due to no available data

Findings:

Rural non-designed dispatched orders were not a focus of the Third Party Test on an individual product basis, so there is insufficient Pseudo-CLEC evidence to draw definitive

conclusions within the product groups tested in this disaggregation. However, all of the 13 such orders were provisioned on time, including all five Residential orders. In addition, aggregate CLEC results are in parity for Residential orders. Therefore, CGE&Y finds that Qwest is providing CLECs with parity service for dispatched residential installation appointments met outside a MSA.

Commercial CLEC results for dispatched business orders outside MSAs indicate a lower rate of on-time commitments (54%) than Retail (90%). Future commercial results will determine if the issues relating to this disparity have been resolved.

Table 2.5.4.1t – OP-3C – Installation Commitments Met (Percent) - No dispatches (N/ MA)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	98.87% n: 32495	99.40% n: 166	98.47% n: 3212	Parity d=-.029, rd=.002	Parity d=0.017, rd=.000
Centrex 21	98.29% n: 8459	100.0% n: 32	99.33% n: 300	Indeterminate -> P d=-.131, rd=.057	Parity d=-.050, rd=.000
ISDN BRS	92.92% n: 113	100.0% n: 19	100.0% n: 1	Parity d=-.269, rd=.039	Insufficient Evidence d=-.269, r0=.608, rd=.332
Megabit	99.11% n: 10128	100.0% n: 1	100.0% n: 2	Insufficient Evidence d=-.094, r0=.538, rd=.405	Insufficient Evidence d=-.094, r0=.553, rd=.367
PBX	98.66% n: 599	100.0% n: 22	100.0% n: 5	Indeterminate --> P d=-.116, rd=.112	Insufficient Evidence d=-.116, r0=.602, rd=.279
Residential	99.73% n: 705441	97.33% n: 187	99.38% n: 12668	Disparity d=0.112, r0=.000	Parity d=0.026, rd=.000
UNE-P (POTS)	99.69% n: 737937	99.53% n: 212	100.0% n: 245	Parity d=0.013, rd=.005	Parity d=-.056, rd=.001

Findings:

Among non-dispatched service orders, Pseudo-CLEC results demonstrate that the rate at which Qwest meets scheduled

installation appointments for Business, ISDN BRS and UNE-P orders is in parity with Retail. Commercial CLEC results are also in parity for these products where sufficient data are available. While Pseudo-CLEC Residential orders are provisioned on-time at a lower rate than retail Residential orders, commercial CLEC results are in parity with Qwest retail. CGE&Y finds that Qwest meets over 97 percent of installation commitments for the Pseudo-CLEC and 99 percent for commercial CLECs offers competitors a meaningful opportunity to compete.

In addition, the Pseudo-CLEC Centrex 21 and PBX results lean strongly in the direction of parity, although their sample size as individual products is insufficient for a statistically significant determination. Commercial CLEC results also demonstrate parity of on-time provisioning for non-dispatched Centrex 21 orders.

Table 2.5.4.1u – OP-3D – Installation Commitments Met (Percent) - Interval Zone One (A/HY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
DS0	88.43% n: 121	100.0% n: 1	See note #1	Insufficient Evidence d=-.347, r0=.641, rd=.298	See note #1
ISDN BRS	93.64% n: 1400	80.00% n: 10	100.0% n: 13	Disparity d=0.209, r0=.039	Indeterminate --> P d=-.255, rd=.066
Megabit	93.68% n: 14775	100.0% n: 3	100.0% n: 1	Insufficient Evidence d=-.254, r0=.674, rd=.234	Insufficient Evidence d=-.254, r0=.602, rd=.338
PBX	89.86% n: 207	100.0% n: 1	100.0% n: 7	Insufficient Evidence d=-.324, r0=.631, rd=.308	Indeterminate --> P d=-.324, rd=.095
Unbundled Loop ADSL	95.71% n: 25110	100.0% n: 2	100.0% n: 6	Insufficient Evidence d=-.209, r0=.618, rd=.303	Indeterminate -> P d=-.209, rd=.185
Unbundled 2 Wire Analog	90.0%	100.0% n: 79	99.55% n: 6825	Pass	Pass

Note 1: The table cell is vacant due to no available data

Findings:
Among designed service orders in Interval Zone One, Pseudo-CLEC results indicate a disparity with Qwest retail for ISDN BRS. However, this is based on only ten observations and Qwest met all installation commitments for commercial CLEC ISDN BRS orders in Interval Zone One. Therefore, CGE&Y finds that Qwest meets installation commitments for ISDN BRS orders in Interval Zone One at acceptable levels.

Unbundled 2-wire analog results met the established 90 percent benchmark for both the Pseudo-CLEC and aggregate CLECs.

All other products show a high level of service for the Pseudo-CLEC and aggregate CLECs (meeting 100 percent of appointments for commercial CLECs).

Table 2.5.4.1v – OP-3E - Installation Commitments Met (Percent) - Interval Zone Two (A/HN)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
DS0	90.20% n: 102	100.0% n: 59	See note #1	Parity d=-.318, rd=.001	See note #1
ISDN BRS	86.53% n: 193	50.00% n: 2	See note #1	Indeterminate -> DP d=0.410, r0=.066	See note #1
PBX	90.28% n: 72	See note #1	100.0% n: 2	See note #1	Insufficient Evidence d=-.317, r0=.676, rd=.245
Unbundled 2 Wire Analog	90.0%	100.0% n: 1	100.0% n: 1	Pass	Pass

Note 1: The table cell is vacant due to no available data

Findings:
Results for installation commitments in Interval Zone Two demonstrate that Qwest provision Pseudo-CLEC DS0 orders on-time at a rate in parity with Retail results.

Installation Intervals OP-4

Measure Description:
This measure reports the average time to install service. Disaggregations are the same as for Installation Commitments Met measurements. The standard of comparison for this measure is parity with Qwest retail results except for unbundled 2 wire analog loops, which are measured against a six-day benchmark.

Table 2.5.4.1w – OP-4A – Installation Interval (Average Days) - Dispatches within MSAs (Y/MY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	Log: 4.01 Arith: 5.78 n: 21917	Log: 4.72 Arith: 5.50 n: 96	Log: 4.29 Arith: 5.41 n: 569	Log: Disparity d=0.197, r0=.027 Arith: Parity d=-.037, rd=.001	Log: Parity d=0.081, rd=.000 Arith: Parity d=-.049, rd=.000
Centrex 21	Log: 4.52 Arith: 6.50 n: 3507	See note #1	Log: 4.76 Arith: 6.38 n: 55	See note #1	Log: Parity d=0.060, rd=.049 Arith: Parity d=-.015, rd=.013
ISDN BRS	Log: 3.65 Arith: 7.59 n: 180	Log: 3.00 Arith: 3.00 n: 1	See note #1	Log: Insuff. Evid. d=-.172, r0=.568, rd=.324 Arith: Insuff. Evid. d=-.300, r0=.618, rd=.280	See note #1
PBX	Log: 4.26 Arith: 6.85 n: 221	Log: 4.00 Arith: 4.00 n: 1	See note #1	Log: Insuff. Evid. d=-.075, r0=.530, rd=.360 Arith: Insuff. Evid. d=-.246, r0=.597, rd=.298	See note #1
Residential	Log: 4.47 Arith: 5.75 n: 128297	Log: 4.24 Arith: 5.33 n: 45	Log: 2.26 Arith: 3.13 n: 3000	Log: Parity d=-.079, rd=.007 Arith: Parity d=-.071, rd=.009	Log: Parity d=-.961, rd=.000 Arith: Parity d=-.444, rd=.000
UNE-P (POTS)	Log: 4.40 Arith: 5.75 n: 150214	Log: 3.66 Arith: 3.73 n: 101	Log: 4.08 Arith: 5.43 n: 7	Log: Parity d=-.257, rd=.000 Arith: Parity d=-.328, rd=.000	Log: Indeterminate --> P d=-.107, rd=.150 Arith: Indeterminate --> P d=-.053, rd=.186

Note 1: The table cell is vacant due to no available data

Findings:

Among dispatched orders within MSAs, Qwest failed to provide the Pseudo-CLEC with parity provisioning intervals for business orders when log-transformed data is used. This disparity is for less than one day (0.71 days). Arithmetic calculations, however, yield a parity result. In addition, commercial CLEC results for non-dispatched business orders are in parity with Qwest retail. Therefore; CGE&Y finds that Qwest provides CLECs with business installations requiring a dispatch in a MSA at parity with installation intervals it provides it own retail customers.

For residential and UNE-P orders, CGE&Y finds that provisioning intervals were demonstrated to be at parity with retail for both the Pseudo-CLEC and commercial CLECs.

There is no Pseudo-CLEC data for Centrex 21 installations requiring a dispatch in a MSA. The commercial CLEC results indicate provisioning intervals at parity with retail for Centrex 21.

Table 2.5.4.1x – OP-4B – Installation Interval (Average Days) – Dispatches outside MSAs (Y/MN)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	Log: 5.12 Arith: 7.26 n: 2118	Log: 4.27 Arith: 4.50 N: 2	Log: 8.66 Arith: 12.23 n: 13	Log: Insuff. Evid. d=-.216, r0=.620, rd=.239 Arith: Indeterminate -> P d=-.313, rd=.199	Log: Disparity d=0.648, r0=.010 Arith: Disparity d=0.563, r0=.021
Centrex 21	Log: 4.66 Arith: 6.59 n: 237	See note #1	Log: 5.84 Arith: 7.00 n: 2	See note #1	Log: Insuff. Evid. d=0.278, r0=.348, rd=.496 Arith: Insuff. Evid. d=0.048, r0=.473, rd=.369
Residential	Log: 5.14 Arith: 6.81 n: 13326	Log: 4.35 Arith: 5.40 N: 5	Log: 3.14 Arith: 3.75 n: 80	Log: Indeterminate -> P d=-.231, rd=.124 Arith: Indeterminate -> P d=-.192, rd=.143	Log: Parity d=-.672, rd=.000 Arith: Parity d=-.417, rd=.000
UNE-P (POTS)	Log: 5.13 Arith: 6.87 n: 15444	Log: 3.25 Arith: 3.33 N: 6	See note #1	Log: Parity d=-.611, rd=.014 Arith: Parity d=-.468, rd=.033	See note #1

Note 1: The table cell is vacant due to no available data

Findings:

For UNE-P installations requiring a dispatch outside a MSA, Pseudo-CLEC provisioning intervals were demonstrated to be at parity with Qwest retail, the only product with sufficient Pseudo-CLEC data. In addition, Aggregate CLEC results are in parity for Residential orders.

Qwest is failing to provide commercial CLECs with parity service for business orders requing a dispatch outside a MSA. The interval for aggregate CLECs is arithmetically five days longer than for Qwest retail customers, and almost three and a half days longer based on log transformed data. This disparity is discussed in CGE&Y's supplemental response to AWIWO2107. Future commercial results will determine if the issues in AZIWO2107 have been resolved.

Table 2.5.4.1y – OP-4C – Installation Interval (Average Days) – No dispatches (N/MA)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	Log: 1.57 Arith: 2.34 n: 30880	Log: 1.62 Arith: 2.89 n: 163	Log: 2.36 Arith: 2.99 n: 3089	Log: Parity d=0.029, rd=.001 Arith: Disparity d=0.206, r0=.004	Log: Disparity d=0.385, r0=.000 Arith: Disparity d=0.244, r0=.000
Centrex 21	Log: 1.80 Arith: 2.72 n: 8003	Log: 3.06 Arith: 3.77 n: 30	Log: 3.10 Arith: 4.29 n: 267	Log: Disparity d=0.500, r0=.003 Arith: Disparity d=0.353, r0=.027	Log: Disparity d=0.512, r0=.000 Arith: Disparity d=0.529, r0=.000
ISDN BRS	Log: 1.50 Arith: 3.01 n: 106	Log: 4.09 Arith: 5.63 n: 19	Log: 5.00 Arith: 5.00 n: 1	Log: Disparity d=0.839, r0=.000 Arith: Indeterminate -> DP d=0.371, r0=.068	Log: Indeterminate -> DP d=1.021, r0=.155 Arith: Insuff Evid d=0.282, r0=.390, rd=.499
Megabit	Log: 2.13 Arith: 2.90 n: 10053	Log: 5.00 Arith: 5.00 n: 1	Log: 0.82 Arith: 1.50 n: 2	Log: Indeterminate -> DP d=0.952, r0=.171 Arith: Insuff. Evid. d=0.838, r0=.201, rd=.710	Log: Parity d=-.883, rd=.049 Arith: Indeterminate -> P d=-.555, rd=.117
PBX	Log: 1.97 Arith: 2.65 n: 587	Log: 4.09 Arith: 4.41 n: 22	Log: 1.48 Arith: 2.00 n: 4	Log: Disparity d=0.846, r0=.000 Arith: Disparity d=0.667, r0=.001	Log: Indeterminate -> P d=-.303, rd=.121 Arith: Indeterminate -> P d=-.248, rd=.144
Residential	Log: 1.81 Arith: 2.49 n: 638958	Log: 1.14 Arith: 1.91 n: 185	Log: 1.22 Arith: 1.86 n: 12205	Log: Parity d=-.445, rd=.000 Arith: Parity d=-.231, rd=.000	Log: Parity d=-.388, rd=.000 Arith: Parity d=-.252, rd=.000
UNE-P (POTS)	Log: 1.80 Arith: 2.48 n: 669839	Log: 2.23 Arith: 2.73 n: 211	Log: 1.82 Arith: 2.27 n: 223	Log: Disparity d=0.227, r0=.000 Arith: Parity d=0.097, rd=.003	Log: Parity d=0.014, rd=.000 Arith: Parity d=-.085, rd=.000

Findings:

Pseudo-CLEC results for business installations requiring no dispatch is in parity with Qwest retail. By contrast, Qwest failed to provide commercial CLECs with parity performance for this same product. However, this disparity is associated with the future performance assurance process and is out of the scope of the Arizona 271 engagement.

Qwest failed to provide the Pseudo-CLEC with parity installation intervals for UNE-P installations requiring no dispatch. However, Pseudo-CLEC UNE-P installation intervals are only about half a day longer than Qwest retail using log-transformed data. Moreover, arithmetic results for the Pseudo-CLEC are in parity, as are aggregate CLEC results. Therefore, CGE&Y finds Qwest is providing CLECs with parity installation intervals for UNE-P orders requiring no dispatch.

Pseudo-CLEC and commercial CLEC results are in parity for Residential installations requiring no dispatch.

Among non-dispatched orders, the Pseudo-CLEC results indicate that Centrex 21, ISDN BRS, and PBX provisioning intervals were significantly longer than for Qwest retail. Of these products, Qwest failed to provide commercial CLECs with parity installation intervals for Centrex 21, the only product with sufficient data. CGE&Y submitted AZIWO2100 regarding the disparities found for non-dispatched Centrex 21, PBX, and ISDN BRS (and designed ISDN BRS). Commercial CLECs are ordering sufficient volumes for only Centrex 21. Future commercial results will determine if the issues relating to Centrex 21 provisioning intervals in AZIWO2100 have been resolved. CGE&Y will retest Qwest's provisioning of designed and non-designed ISDN BRS lines.

Table 2.5.4.1z – OP-4D – Installation Interval (Average Days) - Interval Zone One (A/HY)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
DS0	Log: 6.16 Arith: 8.05 n: 108	Log: 4.00 Arith: 4.00 n: 1	See note #1	Log: Indeterminate -> P d=-.633, rd=.180 Arith: Insuff Evid d=-.410, r0=.659, rd=.244	See note #1
ISDN BRS	Log: 7.36 Arith: 8.99 n: 1318	Log: 14.43 Arith: 15.30 n: 10	Log: 13.84 Arith: 13.92 n: 13	Log: Disparity d=1.075, r0=.000 Arith: Disparity d=0.875, r0=.003	Log: Disparity d=1.008, r0=.000 Arith: Disparity d=0.684, r0=.007
Megabit	Log: 10.59 Arith: 11.17 n: 14413	Log: 5.00 Arith: 5.00 n: 3	Log: 24.00 Arith: 24.00 n: 1	Log: Parity d=-2.40, rd=.000 Arith: Parity d=-1.19, rd=.005	Log: Disparity d=2.714, r0=.003 Arith: Disparity d=2.483, r0=.007
PBX	Log: 7.51 Arith: 9.62 n: 197	Log: 5.00 Arith: 5.00 n: 1	Log: 12.20 Arith: 15.71 n: 7	Log: Indeterminate -> P d=-.560, rd=.200 Arith: Insuff Evid d=-.508, r0=.694, rd=.214	Log: Disparity d=0.687, r0=.037 Arith: Disparity d=0.671, r0=.041
Unbundled Loop ADSL	Log: 5.67 Arith: 7.78 n: 24674	See note #1	Log: 5.19 Arith: 5.20 n: 5	See note #1	Log: Indeterminate -> P d=-.091, rd=.200 Arith: Indeterminate -> P d=-.437, rd=.053
Unbundled 2 Wire Analog	6 Days	Log: 5.12 Arith: 5.15 n: 47	Log: 5.19 Arith: 5.33 n: 2829	Pass	Pass

Note 1: The table cell is vacant due to no available data

Findings:

Unbundled 2 Wire Analog results (the only disaggregation with more than ten observations), met the established six-day benchmark for the Pseudo-CLEC and aggregate CLECs.

Qwest failed to provide parity installation intervals for ISDN BRS for the Pseudo-CLEC and aggregate CLECs in Interval Zone One. Although there are only ten Pseudo-CLEC observations for this disaggregation, it should be noted that the log difference with retail is seven days for the Pseudo-CLEC and over six days for commercial CLECs. A similar difference is also found for ISDN BRS in Interval Zone Two. The ISDN BRS disparity is discussed in AZIWO2100. CGE&Y will retest Qwest's provisioning of designed and non-designed ISDN BRS lines.

Table 2.5.4.1aa – OP-4E - Installation Interval (Average Days) - Interval Zone Two (A/HN)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
DS0	Log: 5.01 Arith: 7.06 n: 100	Log: 3.57 Arith: 3.93 n: 59	See note #1	Log: Parity d=-.472, rd=.000 Arith: Parity d=-.297, rd=.000	See note #1
ISDN BRS	Log: 9.82 Arith: 11.75 n: 179	Log: 18.41 Arith: 19.50 n: 2	See note #1	Log: Indeterminate -> DP d=1.074, r0=.065 Arith: Indeterminate -> DP d=0.902, r0=.102	See note #1
PBX	Log: 9.29 Arith: 10.96 n: 70	See note #1	Log: 24.00 Arith: 24.00 n: 1	See note #1	Log: Indeterminate -> DP d=1.633, r0=.052 Arith: Disparity d=1.878, r0=.031
Unbundled 2 Wire Analog	6 Days	Log: 5.00 Arith: 5.00 n: 1	See note #1	Pass	See note #1

Note 1: The table cell is vacant due to no available data

Findings:
Pseudo-CLEC results for DS-0 reveal Qwest is providing better service to the Pseudo-CLEC than to its own retail customers. ISDN BRS results strongly agree with the significant disparity found for ISDN BRS in Interval Zone One, as described in AZIWO2100. CGE&Y will retest Qwest's provisioning of designed and non-designed ISDN BRS lines. (See also, OP-4D)

New Service Installation Quality OP-5

Measure Description:
OP-5 measures the percentage of new order installations that were trouble free within the first 30 calendar days following installation. This measure is reported for all products installed during the reporting period and the standard of comparison is parity with Qwest retail results.

Table 2.5.4.1bb – OP-5 – New Service Installation Quality					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	87.85% n: 63645.5	98.90% n: 273	88.65% n: 4194.5	Parity d=-.251, rd=.000	Parity d=-.012, rd=.000
Centrex 21	83.02% n: 13506.5	100.0% n: 32	84.45% n: 379.5	Parity d=-.425, rd=.000	Parity d=-.019, rd=.000
DS0	33.49% n: 427	100.0% n: 60	See note #1	Parity d=-.954, rd=.000	See note #1
ISDN BRS	92.37% n: 2215	100.0% n: 32	100.0% n: 15	Parity d=-.280, rd=.006	Parity d=-.280, rd=.042
Megabit	94.52% n: 26488	100.0% n: 4	0.00% n: 3	Insuff Evid d=-.236, r0=.685, rd=.213	Disparity d=1.334, r0=.000
PBX	86.60% n: 1590	100.0% n: 24	82.09% n: 33.5	Parity d=-.375, rd=.003	Too close D=0.062, r0=.222, rd=.192
Residential	93.10% n: 939186	99.38% n: 320.5	92.96% n: 18278	Parity d=-.187, rd=.000	Parity d=0.003, rd=.000
Unbundled Loop ADSL	95.41% n: 20616	100.0% n: 2	86.67% n: 75	Insuff Evid d=-.216, r0=.622, rd=.299	Indeterminate -> DP d=0.158, r0=.119
Unbundled 2 Wire Analog	92.77% n: 1002831.5	98.07% n: 103.5	93.85% n: 8613.5	Parity d=-.133, rd=.000	Parity d=-.022, rd=.000
UNE-P (POTS)	92.77% n: 1002833	96.12% n: 335	94.71% n: 264.5	Parity d=-.074, rd=.000	Parity d=-.040, rd=.000

Note 1: The table cell is vacant due to no available data

Findings:

Pseudo-CLEC results are shown to be in parity for all product disaggregations where sufficient data is available. Moreover, aggregate CLEC results are in parity for all products where sufficient data is available for definite parity/disparity determinations except one, (Megabit), which is based on only three observations. Aggregate CLEC results for Unbundled Loop ADSL strongly suggest disparity. Future commercial

results will determine if the issues relating to the disparity for Unbundled Loop ADSL have been resolved.

Delayed Days OP-6

Measure Description:
OP-6 measures the average number of days service installation is delayed beyond the scheduled due date. The average delayed days is considered for non-facility and facility reasons separately. Further disaggregations are the same as the other provisioning measures described above. The limited data available are due to high rates of appointments met by Qwest. The only products provided are those with missed due dates. The standard of comparison for this measure is parity with Qwest retail results.

Table 2.5.4.1cc – OP-6A-1 – Delayed Days for Non-Facility Reasons (Average Days) – Dispatches within MSAs (Y/MY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	Log: 2.50 Arith: 4.42 n: 777	Log: 1.74 Arith: 2.00 N: 4	Log: 3.32 Arith: 5.55 n: 67	Log: Indeterminate -> P d=-.338, rd=.107 Arith: Indeterminate -> P d=-.309, rd=.118	Log: Disparity D=0.284, r0=.013 Arith: Too close d=0.144, r0=.129, rd=.133
Residential	Log: 2.23 Arith: 4.13 n: 1728	Log: 1.79 Arith: 2.00 N: 2	Log: 1.88 Arith: 2.75 n: 73	Log: Insuff. Evid. d=-.190, r0=.606, rd=.251 Arith: Insuff. Evid. d=-.280, r0=.654, rd=.212	Log: Parity D=-.148, rd=.000 Arith: Parity d=-.181, rd=.000
UNE-P (POTS)	Log: 2.31 Arith: 4.22 n: 2505	Log: 1.47 Arith: 1.60 N: 5	Log: 15.00 Arith: 15.00 n: 1	Log: Indeterminate -> P d=-.396, rd=.064 Arith: Indeterminate -> P d=-.341, rd=.081	Log: Disparity d=1.906, r0=.028 Arith: Indeterminate -> DP d=1.403, r0=.080

Findings:
Data is insufficient to make any determination for the Pseudo-CLEC, but the available data strongly suggests parity. Aggregate CLEC data demonstrates parity for residential orders. However, data for business orders reveal that commercial CLECs are experiencing longer installation delays than retail customers. This is the subject of AZIWO2123.

Future commercial results will determine if the issues in AZIWO2123 have been resolved.

UNE-P results for aggregate CLECs are based on only one observation and are inconclusive.

Table 2.5.4.1dd – OP-6A-2 - Delayed Days for Non-Facility Reasons (Average Days) - Dispatches Outside MSAs (Y/MN)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	Log: 2.34 Arith: 4.08 n: 73	See note #1	Log: 8.91 Arith: 14.50 n: 6	See note #1	Log: Disparity d=1.447, r0=.000 Arith: Disparity d=1.423, r0=.000
Residential	Log: 2.29 Arith: 4.74 n: 293	See note #1	Log: 1.00 Arith: 1.00 n: 2	See note #1	Log: Indeterminate -> P d=-.600, rd=.106 Arith: Indeterminate -> P d=-.470, rd=.144

Note 1: The table cell is vacant due to no available data

Findings:

The Pseudo-CLEC experienced no delays for dispatches outside MSAs due to reasons other than a lack of facilities.

Despite having only six observations, it is clear from the commercial CLEC data that among business orders delayed for non-facility reasons, CLECs experience longer installation delays than retail. This is the subject of AZIWO2123. Future commercial results will determine if the issues in AZIWO2123 have been resolved.

Table 2.5.4.1ee – OP-6A-3 – Delayed Days for Non-Facility Reasons (Average Days) – No dispatches (N/MA)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	Log: 2.42 Arith: 3.94 n: 274	Log: 3.00 Arith: 3.00 n: 1	Log: 1.83 Arith: 2.44 n: 48	Log: Insuff. Evid. d=0.219, r0=.413, rd=.474 Arith: Insuff. Evid. d=-.169, r0=.567, rd=.325	Log: Parity d=-.269, rd=.000 Arith: Parity d=-.271, rd=.000
Centrex 21	Log: 2.58 Arith: 4.11 n: 132	See note #1	Log: 2.00 Arith: 2.00 n: 1	See note #1	Log: Insuff. Evid. d=-.243, r0=.596, rd=.299 Arith: Insuff. Evid. d=-.440, r0=.669, rd=.235
Residential	Log: 2.53 Arith: 4.71 n: 1348	Log: 2.68 Arith: 4.60 n: 5	Log: 1.81 Arith: 2.48 n: 58	Log: Insuff. Evid. d=0.051, r0=.454, rd=.301 Arith: Insuff. Evid. d=-.013, r0=.511, rd=.253	Log: Parity d=-.292, rd=.000 Arith: Parity d=-.264, rd=.000
UNE-P (POTS)	Log: 2.51 Arith: 4.58 n: 1622	Log: 1.00 Arith: 1.00 n: 1	See note #1	Log: Indeterminate -> P d=-.761, rd=.148 Insuff Evid d=-.447, r0=.672, rd=.232	See note #1

Note 1: The table cell is vacant due to no available data

Findings:

Results for this measurement are positive. Data quantities are insufficient, but these limited results show that Qwest is meeting CLEC due dates. In the few instances where they are missed, the delay intervals are short as for Qwest retail. Aggregate CLEC results support this with intervals significantly shorter than Qwest retail for Residential and Business installations.

Table 2.5.4.1ff – OP-6A-4 – Delayed Days for Non-Facility Reasons (Average Days) –Interval Zone One (A/HY)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Unbundled 2 Wire Analog	Log: 2.40 Arith: 4.39 n: 4034	See note #1	Log: 1.82 Arith: 3.00 n: 25	See note #1	Log: Parity d=-.247, rd=.004 Arith: Parity d=-.176, rd=.011

Note 1: The table cell is vacant due to no available data

Findings:
Qwest did not miss any appointments for the Pseudo-CLEC in Interval Zone One for non-facility reasons. Qwest is providing aggregate CLECs with parity service for Unbundled 2 Wire Analog.

Table 2.5.4.1gg – OP-6B-1 – Delayed Days for Facility Reasons (Average Days) – Dispatches within MSAs (Y/MY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	Log: 8.77 Arith: 15.22 n: 1179	Log: 5.81 Arith: 7.83 n: 6	Log: 7.07 Arith: 9.76 n: 17	Log: Indeterminate -> P d=-.353, rd=.060 Arith: Parity d=-.450, rd=.036	Log: Parity d=-.186, rd=.027 Arith: Parity d=-.332, rd=.006
Centrex 21	Log: 8.61 Arith: 14.39 n: 151	See note #1	Log: 13.00 Arith: 13.00 n: 1	See note #1	Log: Insuff Evid d=0.381, r0=.352, rd=.538 Arith: Insuff Evid d=-.088, r0=.535, rd=.355
Residential	Log: 7.67 Arith: 12.53 n: 4145	Log: 12.75 Arith: 16.33 n: 3	Log: 5.18 Arith: 7.63 n: 59	Log: Insuff Evid d=0.478, r0=.204, rd=.630 Insuff Evid d=0.289, r0=.308, rd=.503	Log: Parity d=-.359, rd=.000 Arith: Parity d=-.373, rd=.000

Note 1: The table cell is vacant due to no available data

Findings:
Pseudo-CLEC data is insufficient for any parity/disparity determinations. Aggregate commercial CLEC results demonstrate parity for Business and Residential delayed days for facility reasons among dispatched orders within MSAs.

Table 2.5.4.1hh – OP-6B-2 – Delayed Days for Facility Reasons (Average Days) - Dispatches outside MSAs (Y/MN)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Residential	Log: 11.22 Arith: 16.38 n: 709	See note #1	Log: 8.47 Arith: 10.33 n: 3	See note #1	Log: Indeterminate -> P d=-.290, rd=.160 Arith: Indeterminate -> P d=-.423, rd=.110

Note 1: The table cell is vacant due to no available data

Findings:
Data is insufficient to make any determinations for Residential installations, the only product with data available. These limited results for aggregate CLECs, however, strongly suggests parity.

Table 2.5.4.1ii – OP-6B-3 - Delayed Days for Facility Reasons (Average Days) - No dispatches (N/MA)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	Log: 5.14 Arith: 10.30 n: 92	See note #1	Log: 6.00 Arith: 6.00 n: 1	See note #1	Log: Insuff Evid d=0.127, r0=.450, rd=.437 Arith: Insuff Evid d=-.280, r0=.610, rd=.287
Centrex 21	Log: 3.78 Arith: 7.15 n: 13	See note #1	Log: 7.00 Arith: 7.00 n: 1	See note #1	Log: Insuff Evid d=0.529, r0=.305, rd=.593 Arith: Insuff Evid d=-.015, r0=.506, rd=.386
Residential	Log: 4.02 Arith: 7.40 n: 588	See note #1	Log: 3.52 Arith: 4.40 n: 20	See note #1	Log: Parity d=-.111, rd=.041 Arith: Parity d=-.306, rd=.005

Note 1: The table cell is vacant due to no available data

Findings:

Results demonstrate that commercial CLECs receive parity service in delayed days for facility reasons on non-dispatched Residential orders. Qwest did not miss any commitments to the Pseudo-CLEC due to facility reasons when no dispatch is required.

Table 2.5.4.1jj – OP-6B-4 – Delayed Days for Facility Reasons (Average Days) – Interval Zone One (A/HY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
ISDN BRS	Log: 10.69 Arith: 15.38 n: 66	Log: 9.86 Arith: 11.00 n: 2	See note #1	Log: Insuff Evid d=-.081, r0=.545, rd=.305 Arith: Indeterminate -> P d=-.382, rd=.176	See note #1
Unbundled 2 Wire Analog	Log: 7.38 Arith: 12.55 n: 5946	See note #1	Log: 4.17 Arith: 5.17 n: 6	See note #1	Log: Parity d=-.498, rd=.028 Arith: Parity d=-.536, rd=.022

Note 1: The table cell is vacant due to no available data

Findings:

There is insufficient Pseudo-CLEC data for any parity determination. However, results for Unbundled 2 Wire Analog indicate a large enough difference to conclude parity between aggregate CLECs and Qwest.

Table 2.5.4.1kk – OP-6B-5 – Delayed Days for Facility Reasons (Average Days) – Interval Zone Two (A/ HN)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
ISDN BRS	Log: 10.58 Arith: 13.95 n: 22	Log: 5.00 Arith: 5.00 n: 1	See note #1	Log: Indeterminate -> P d=-.865, rd=.130 Arith: Indeterminate -> P d=-.881, rd=.127	See note #1

Note 1: The table cell is vacant due to no available data

Findings:

Qwest missed only one installation commitment for Pseudo-CLEC ISDN BRS orders in Interval Zone Two, insufficient for any parity determination.

Coordinated "Hot Cut" Interval OP-7

Measure Description:
OP-7 measures the average time to complete coordinated "hot cuts" of unbundled loops beginning with the "lift" time and ending with Qwest's testings of the loop. This is a diagnostic measure with no established standard.

Table 2.5.4.1ll – OP-7 – Coordinated "Hot Cut" Interval (Hours:Minutes)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled Analog	Diagnostic	Log: 0:03:49 Arith: 0:04:34 n: 14	Log: 0:03:36 Arith: 0:05:50 n: 6895	N/A	N/A

Findings:
No performance standard is available for this measure, therefore no findings are possible.

Coordinated Cuts On-Time OP-13

Measure Description:
OP-13A measures the percentage of coordinated cuts completed within one hour of the scheduled due time. The benchmark for this measure is 90 percent within an hour. OP-13B reports the percentage of coordinated cuts started without CLEC approval. This measure is diagnostic and for informational purposes only.

Table 2.5.4.1mm – OP-13A – Coordinated Cuts Completed on Time (Percent)					
Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled Analog	90%	100.0% n: 10	84.44% n: 2133	Pass	Fail

Findings:
All of the Pseudo-CLEC coordinated cuts were completed on time, exceeding the 90 percent benchmark. Aggregate CLEC results failed to meet the benchmark. However, this performance failure is associated with the future performance assurance process and is out of the scope of the Arizona 271 engagement.

Table 2.5.4.1nn – OP-13B – Coordinated Cuts Started Without CLEC Approval (Percent)					
Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled Analog	Diagnostic	0.00% n: 10	5.73% n: 2217	N/A	N/A

Findings:
No performance standard is available for this measure, therefore, no findings are possible.

Maintenance & Repair Services MR-All

Measures Description:
The approach for the Maintenance and Repair functionality test was designed to assess the functionality of access to Qwest systems for processing requests from the Pseudo-CLEC. Per Section 7.3.1 of the TSD, CGE&Y provided test scripts introducing troubles for each product cell detailed in Section 9.1.2 of the TSD. In order to avoid jeopardizing the blindness of the test and distorting the results for several measures, CGE&Y limited the number of planned troubles to a reasonable

amount for a similarly sized CLEC. The statistical evaluation of parity/disparity Maintenance and Repair services provided to competitors will be accomplished using commercial CLEC aggregate data where Pseudo-CLEC data are insufficient. In those cases where insufficient data exist for both the Pseudo-CLEC and commercial CLECs to make a definite determination of parity/disparity, CGE&Y combined the results for a comparison against Qwest retail.

Out of Service Troubles Cleared Within 24 Hours MR-3

Measure Description:
MR-3 measures the percentage of out of service trouble reports that are cleared within 24 hours of receipt of trouble report. Disaggregations are based on dispatch status and areas described in provisioning measures. The standard of comparison for this measure is parity with Qwest retail results.

Table 2.5.4.1oo – MR-3A – Out of Service Cleared within 24 Hours (Percent) - Dispatches within MSAs (Y/ MY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	90.88% n: 24568	85.71% n: 7	92.61% n: 798	Insuff Evid d=0.081, r0=.318, rd=.380	Parity d=-.031, rd=.000
Residential	87.36% n: 203033	100.0% n: 5	92.70% n: 2837	Indeterminate -> P d=-.364, rd=.108	Parity d=-.090, rd=.000
UNE-P (POTS)	87.74% n: 227602	83.33% n: 6	85.37% n: 41	Insuff Evid d=0.063, r0=.371, rd=.357	Indeterminate -> P d=0.035, rd=.103

Findings:
Pseudo-CLEC results are insufficient for any determinations, however aggregate commercial CLEC results demonstrate that parity service is provided in clearing out of service Business and Residential troubles involving dispatches within MSAs within 24 hours. When UNE-P Pseudo-CLEC and aggregate CLEC results are combined, the results strongly suggest parity (d=0.038, rd=0.094).

CGE&Y finds that Qwest provides parity service for Business, Residential and UNE-P out of service conditions cleared within 24 hours requiring a dispatch in a MSA.

Table 2.5.4.1pp – MR-3B – Out of Service Cleared within 24 Hours (Percent) – Dispatches Outside MSAs (Y/MN)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	86.89% n: 2631	See note #1	100.0% n: 13	See note #1	Parity d=-.371, rd=.022
Residential	85.81% n: 19573	See note #1	96.36% n: 55	See note #1	Parity d=-.194, rd=.000
UNE-P (POTS)	85.93% n: 22204	100.0% n: 2	100.0% n: 4	Insuff Evid d=-.384, r0=.716, rd=.206	Indeterminate -> P d=-.384, rd=.123

Note 1: The table cell is vacant due to no available data

Findings:

There is insufficient Pseudo-CLEC data for dispatches outside MSAs. Aggregate CLEC results demonstrate that parity service is provided in clearing out of service Business and Residential troubles involving dispatches outside MSAs within 24 hours. When UNE-P Pseudo-CLEC and aggregate CLEC results are combined, the results strongly suggests parity (d=-0.384, rd=0.077). CGE&Y finds that Qwest provides parity service for Business, Residential and UNE-P out of service conditions cleared within 24 hours requiring a dispatch outside a MSA.

Table 2.5.4.1qq – MR-3C – Out of Service Cleared within 24 Hours (Percent) - No dispatches (N/MA)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	96.92% n: 7782	100.0% n: 2	97.27% n: 256	Insuff Evid d=-.177, r0=.600, rd=.321	Parity d=-.010, rd=.000
Residential	94.70% n: 41511	100.0% n: 2	97.32% n: 523	Insuff Evid d=-.232, r0=.631, rd=.289	Parity d=-.068, rd=.000
UNE-P (POTS)	95.05% n: 49293	80.00% n: 15	100.0% n: 17	Disparity d=0.239, r0=.004	Indeterminate -> P d=-.224, rd=.057

Findings:
UNE-P is the only disaggregation with sufficient data for the Pseudo-CLEC. Results show Qwest is failing to provide the Pseudo-CLEC parity service for UNE-P troubles requiring no dispatch (Qwest failed to clear 3 out of 15 out of service conditions within 24 hours). However, all UNE-P troubles for the aggregate CLECs were cleared within 24 hours. Therefore, CGE&Y finds that Qwest provides parity service to CLECs for UNE-P out of service cleared within 24 hours requiring no dispatch.

Results for the aggregate CLECs demonstrate parity service for the Business and Residential disaggregations.

Table 2.5.4.1rr – MR-3D – Out of Service Cleared within 24 Hours (Percent) –Interval Zone One (A/HY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled 2 Wire Analog	88.68% n: 236758	See note #1	98.23% n: 1525	See note #1	Parity d=-.210, rd=.000

Note 1: The table cell is vacant due to no available data

Findings:
There is no data available for the Pseudo-CLEC within this disaggregation. Commercial CLECs in the aggregate received better service than retail, as 98.23 percent of troubles were cleared within 24 hours versus 88.68 percent for Qwest retail customers.

Table 2.5.4.1ss – MR-3E - Out of Service Cleared within 24 Hours (Percent) - Interval Zone Two (A/HN)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled 2 Wire Analog	86.92% n: 21309	See note #1	100.0% n: 1	See note #1	Insuff Evid d=-.370, r0=.651, rd=.287

Note 1: The table cell is vacant due to no available data

Findings:
There was only one out of service condition in Interval Zone Two during the six-month test period for commercial CLECs and it was cleared on time.

All Troubles Cleared Within 48 Hours MR-4

Measure Description:
MR-4 measures the percentage of both service affecting and out of service trouble reports that are cleared within 48 hours of receipt of the trouble report. Disaggregations are the same as reported in MR-3. The standard of comparison for this measure is parity with Qwest retail results.

Table 2.5.4.1tt – MR-4A – All Troubles Cleared within 48 Hours (Percent) – Dispatches within MSAs (Y/MY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	97.49% n: 31135	100.0% n: 8	98.32% n: 1012	Indeterminate -> P d=-.159, rd=.190	Parity d=-.029, rd=.000
Residential	96.89% n: 261237	100.0% n: 7	98.62% n: 3405	Indeterminate -> P d=-.177, rd=.191	Parity d=-.060, rd=.000
UNE-P (POTS)	96.95% n: 292373	100.0% n: 9	95.74% n: 47	Indeterminate -> P d=-.176, rd=.162	Indeterminate -> P d=0.032, rd=.102

Findings:
All troubles were cleared within 48 hours for the Pseudo-CLEC. Moreover, aggregate CLECs also experienced very high rates of cleared troubles, meeting the parity standard for Business and Residential and leaning towards parity for UNE-P. When UNE-P Pseudo-CLEC and aggregate CLEC results are combined the comparison with retail remained indeterminate leaning towards parity (d=0.015, rd=0.060). CGE&Y finds that Qwest provides parity service for Business, Residential and UNE-P troubles cleared within 48 hours requiring a dispatch in a MSA.

Table 2.5.4.1uu – MR-4B – All Troubles Cleared within 48 Hours (Percent) –Dispatches outside MSAs (Y/MN)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	96.12% n: 3398	See note #1	100.0% n: 16	See note #1	Indeterminate -> P d=-.198, rd=.079
Residential	94.55% n: 25998	See note #1	96.83% n: 63	See note #1	Parity d=-.057, rd=.008
UNE-P (POTS)	94.73% n: 29396	100.0% n: 2	100.0% n: 4	Insuff Evid d=-.232, r0=.631, rd=.290	Insuff Evid d=-.232, r0=.681, rd=.217

Note 1: The table cell is vacant due to no available data

Findings:

Results demonstrate parity for commercial CLECs for Residential troubles. In addition, all Business troubles were cleared within 48 hours. When UNE-P Pseudo-CLEC and aggregate CLEC results are combined, results strongly suggest parity (d=-0.232, rd=0.169). CGE&Y finds that Qwest provides parity service for Business, Residential and UNE-P troubles cleared within 48 hours requiring a dispatch outside a MSA.

Table 2.5.4.1vv – MR-4C – All Troubles Cleared within 48 Hours (Percent) - No Dispatches (N/MA)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	99.43% n: 19374	100.0% n: 2	99.40% n: 1004	Insuff Evid d=-.075, r0=.543, rd=.377	Parity d=0.002, rd=.000
Residential	99.31% n: 114320	100.0% n: 3	100.0% n: 1049	Insuff Evid d=-.083, r0=.557, rd=.346	Parity d=-.083, rd=.000
UNE-P (POTS)	99.33% n: 133694	100.0% n: 19	100.0% n: 31	Indeterminate -> P d=-.082, rd=.161	Indeterminate -> P d=-.082, rd=.103

Findings:

All Pseudo-CLEC and commercial CLEC Residential and UNE-P troubles were cleared within 48 hours. In addition, commercial CLEC results were also demonstrated to be in parity for Business troubles. CGE&Y finds that Qwest provides parity service for Business, Residential and UNE-P troubles cleared within 48 hours requiring no dispatch.

Table 2.5.4.1ww – MR-4D - All Troubles Cleared within 48 Hours (Percent) - Interval Zone One (A/HY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled 2 Wire Analog	97.63% n: 365322	100.0% n: 9	99.67% n: 1527	Indeterminate -> P d=-.155, rd=.180	Parity d=-.097, rd=.000

Findings:
All Pseudo-CLEC troubles were cleared within 48 hours in Interval Zone One. In addition, commercial CLEC results are better than for Qwest retail.

CGE&Y finds that Qwest provides parity service for Unbundled 2 Wire Analog troubles cleared within 48 hours requiring in Interval Zone One.

Table 2.5.4.1xx – MR-4E – All Troubles Cleared within 48 Hours (Percent) - Interval Zone Two (A/HN)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled 2 Wire Analog	95.69% n: 33375	See note #1	100.0% n: 1	See note #1	Insuff Evid d=-.209, r0=.584, rd=.357

Note 1: The table cell is vacant due to no available data

Findings:
There was only one out of service condition in Interval Zone Two during the six-month test period for commercial CLECs and it was cleared on time.

All Troubles Cleared Within 4 Hours MR-5

Measure Description:
MR-5 measures the percentage of trouble reports that are cleared within four hours of receipt of the trouble ticket, for designed services and is reported by whether the service is located within Interval Zone One or Interval Zone Two. The standard of comparison for this measure is parity with Qwest retail results.

Table 2.5.4.1yy – MR-5A – All Troubles Cleared within 4 Hours (Percent) - Interval Zone One (A/HY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled 2 Wire Analog	41.51% n: 365322	100.0% n: 9	75.57% n: 1527	Parity d=-.871, rd=.000	Parity d=-.354, rd=.000

Findings:
All Pseudo-CLEC Unbundled 2 Wire Analog troubles were cleared within four hours in Interval Zone One, demonstrating parity service. In addition, aggregate CLEC results were in parity for Unbundled 2 Wire Analog.

Table 2.5.4.1zz – MR-5B – All Troubles Cleared within 4 Hours (Percent) - Interval Zone Two (A/HN)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled 2 Wire Analog	33.97% n: 33375	See note #1	100.0% n: 1	See note #1	Parity d=-.949, rd=.027

Note 1: The table cell is vacant due to no available data

Findings:
There was only one out of service condition in Interval Zone Two during the six-month test period for commercial CLECs and it was cleared on time.

Mean Time to Restore MR-6

Measure Description:

MR-6 measures the average time to restore services. Disaggregations are based on dispatch status and areas described in provisioning measures. The standard of comparison for this measure is parity with Qwest retail results.

Table 2.5.4.1aaa – MR-6A – Mean Time to Restore (Hours:Minutes) - Dispatches within MSAs (Y/MY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	Log: 06:09 Arith: 11:01 n: 31135	Log: 6:16 Arith: 08:59 n: 8	Log: 06:00 Arith: 10:33 n: 1012	Log: Insuff Evid d=0.018, r0=.480, rd=.225 Arith: Indeterminate -> P d=-.133, rd=.118	Log: Parity d=-.021, rd=.000 Arith: Parity d=-.031, rd=.000
Residential	Log: 08:57 Arith: 14:26 n: 261237	Log: 10:46 Arith: 13:05 n: 7	Log: 07:22 Arith: 11:30 n: 3405	Log: Insuff Evid d=0.174, r0=.322, rd=.385 Arith: Indeterminate -> P d=-.090, rd=.160	Log: Parity d=-.184, rd=.000 Arith: Parity d=-.196, rd=.000
UNE-P (POTS)	Log: 08:36 Arith: 14:04 n: 292373	Log: 07:53 Arith: 11:57 n: 9	Log: 10:15 Arith: 15:00 n: 47	Log: Indeterminate -> P d=-.082, rd=.135 Arith: Indeterminate -> P d=-.141, rd=.100	Log: Indeterminate -> DP d=0.165, r0=.130 Arith: Indeterminate -> P d=0.062, rd=.063

Findings:

Based on commercial CLEC data, CGE&Y finds that Qwest provides parity time to restore for business and residential troubles requiring a dispatch in a MSA. For UNE-P troubles, commercial CLEC results strongly suggest disparity. Future commercial results will determine if the issues relating to UNE-P mean time to restore for dispatches within MSAs have been resolved.

Table 2.5.4.1bbb – MR-6B – Mean Time to Restore (Hours:Minutes) – Dispatches outside MSAs (Y/MN)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	Log: 09:16 Arith: 15:18 n: 3398	See note #1	Log: 08:56 Arith: 12:20 n: 16	See note #1	Log: Indeterminate -> P d=-.034, rd=.101 Arith: Parity d=-.177, rd=.032
Residential	Log: 10:54 Arith: 17:30 n: 25998	See note #1	Log: 08:23 Arith: 13:35 n: 63	See note #1	Log: Parity d=-.244, rd=.000 Arith: Parity d=-.221, rd=.000
UNE-P (POTS)	Log: 10:42 Arith: 17:15 n: 29396	Log: 07:19 Arith: 11:58 n: 2	Log: 07:53 Arith: 10:44 n: 4	Log: Indeterminate -> P d=-.352, rd=.184 Insuff Evid d=-.300, r0=.664, rd=.204	Log: Indeterminate -> P d=-.283, rd=.128 Arith: Indeterminate -> P d=-.369, rd=.095

Note 1: The table cell is vacant due to no available data

Findings:

In all cases, CLEC average restoration intervals are shorter than Qwest retail intervals. Therefore, based on commercial CLEC data, CGE&Y finds that Qwest provides parity time to restore for Business, Residential, and UNE-P troubles requiring a dispatch outside a MSA.

Table 2.5.4.1ccc – MR-6C – Mean Time to Restore (Hours:Minutes) - No dispatches (N/MA)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	Log: 00:40 Arith: 03:45 n: 19374	Log: 01:46 Arith: 02:46 n: 2	Log: 00:54 Arith: 03:49 n: 1004	Log: Insuff Evid d=0.434, r0=.270, rd=.583 Arith: Insuff Evid d=-.083, r0=.547, rd=.301	Log: Parity d=0.131, rd=.000 Arith: Parity d=0.005, rd=.000
Residential	Log: 00:38 Arith: 05:15 n: 114320	Log: 00:42 Arith: 06:31 n: 3	Log: 00:47 Arith: 04:11 n: 1049	Log: Insuff Evid d=0.033, r0=.477, rd=.331 Arith: Insuff Evid d=0.121, r0=.417, rd=.388	Log: Parity d=0.080, rd=.000 Arith: Parity d=-.102, rd=.000
UNE-P (POTS)	Log: 00:38 Arith: 05:02 n: 133694	Log: 02:34 Arith: 07:13 n: 19	Log: 01:20 Arith: 02:59 n: 31	Log: Disparity d=0.522, r0=.011 Arith: Indeterminate -> DP d=0.204, r0=.187	Log: Indeterminate -> DP d=0.276, r0=.062 Arith: Parity d=-.191, rd=.004

Findings:

Non-dispatched UNE-P results reveal a disparity between the Pseudo-CLEC and Qwest retail. Aggregate CLEC results are indeterminate but leaning towards disparity for UNE-P. Future commercial results will determine if the issues relating to UNE-P mean time to restore for non-dispatched repairs have been resolved.

For business and residential troubles, aggregate commercial CLEC restoral intervals are demonstrated to be in parity with retail.

Table 2.5.4.1ddd – MR-6D – Mean Time to Restore (Hours:Minutes) - Interval Zone One (A/HY)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**

Unbundled 2 Wire Analog	Log: 3:41:52 Arith: 11:16:25 n: 365322	Log: 1:09:31 Arith: 1:42:20 n: 9	Log: 1:35:40 Arith: 3:49:14 n: 1527	Log: Parity d=-.537, rd=.007 Arith: Parity d=-.662, rd=.002	Log: Parity d=-.389, rd=.000 Arith: Parity d=-.516, rd=.000

Findings:
Pseudo-CLEC and aggregate CLEC restoral intervals are significantly shorter than Qwest retail intervals for Unbundled 2 Wire Analog troubles.

CGE&Y finds that Qwest provides CLECs with parity mean time to restore for Unbundled 2 Wire Analog in Interval Zone One.

Table 2.5.4.1eee – MR-6E – Mean Time to Restore (Hours:Minutes) - Interval Zone Two (A/HN)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled 2 Wire Analog	Log: 4:55:20 Arith: 14:09:35 n: 33375	See note #1	Log: 3:16:00 Arith: 3:16:00 n: 1	See note #1	Log: Insuff Evid d=-.193, r0=.577, rd=.316 Arith: Indeterminate -> P d=-.621, rd=.182

Note 1: The table cell is vacant due to no available data

Findings:
There was only one out of service condition in Interval Zone Two during the six-month test period for commercial CLECs, insufficient for parity/disparity conclusions.

Repair Repeat Report Rate MR-7

Measure Description:
MR-7 measures the percentage of trouble reports that are repeated within 30 days. Disaggregations are based on dispatch status and areas described in provisioning measures. The standard of comparison for this measure is parity with Qwest retail results.

Table 2.5.4.1fff – MR-7A – Repair Repeat Report Rate (Percent) - Dispatches within MSAs (Y/MY)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	18.39% n: 32249	0.00% n: 8	19.21% n: 1062	Parity d=-.443, rd=.030	Parity d=0.010, rd=.000
Residential	18.79% n: 273500	12.50% n: 8	15.55% n: 3518	Indeterminate -> P d=-.087, rd=.129	Parity d=-.043, rd=.000
UNE-P (POTS)	18.75% n: 305750	10.00% n: 10	16.00% n: 50	Indeterminate -> P d=-.126, rd=.076	Parity d=-.036, rd=.011

Findings:

For dispatches within MSAs, Pseudo-CLEC results are in parity or leaning towards parity for repair repeat report rate for all products. Moreover, commercial CLEC results are in parity for all products. CGE&Y finds that Qwest provides parity repeat repair report rates for Business, Residential, and UNE-P troubles requiring a dispatch in a MSA.

Table 2.5.4.1ggg – MR-7B – Repair Repeat Report Rate (Percent) - Dispatches outside MSAs (Y/MN)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	19.91% n: 3481	See note #1	22.22% n: 18	See note #1	Indeterminate -> P d=0.028, rd=.181
Residential	17.43% n: 26752	See note #1	9.38% n: 64	See note #1	Parity d=-.119, rd=.000
UNE-P (POTS)	17.71% n: 30233	50.00% n: 2	0.00% n: 4	Indeterminate -> DP d=0.351, r0=.116	Indeterminate -> P d=-.434, rd=.097

Note 1: The table cell is vacant due to no available data

Findings:

For dispatches outside MSAs, commercial CLEC Residential trouble reports are repeated at rates demonstrated to be in parity with retail. Commercial CLEC results strongly suggest parity for Business troubles. There are insufficient data for any parity determination for UNE-P troubles, however, the combined Pseudo-CLEC and commercial CLEC results is 16.7 percent. CGE&Y finds that Qwest provides parity repeat repair report rates for Business, Residential, and UNE-P troubles requiring a dispatch outside a MSA.

Table 2.5.4.1hhh – MR-7C – Repair Repeat Report Rate (Percent) - No dispatches (N/MA)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	22.90% n: 19374	0.00% n: 2	27.49% n: 1004	Indeterminate -> P d=-.499, rd=.146	Parity d=0.053, rd=.000
Residential	18.09% n: 114325	0.00% n: 3	16.21% n: 1049	Indeterminate -> P d=-.439, rd=.128	Parity d=-.025, rd=.000
UNE-P (POTS)	18.79% n: 133699	5.26% n: 19	19.35% n: 31	Parity d=-.217, rd=.008	Indeterminate -> P d=0.007, rd=.081

Findings:

Among non-dispatched trouble reports, Pseudo-CLEC UNE-P and commercial CLEC Business and Residential repeat rates demonstrate parity with Qwest retail. When UNE-P Pseudo-CLEC and aggregate CLEC results are combined the comparison with retail were in parity (d=-0.065, rd=0.005).

Table 2.5.4.1iii – MR-7D – Repair Repeat Report Rate (Percent) - Interval Zone One (A/HY)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled 2 Wire Analog	18.96% n: 376817	0.00% n: 9	20.37% n: 1527	Parity d=-.451, rd=.022	Parity d=0.018, rd=.000

Findings:
Both Pseudo-CLEC and aggregate CLEC Unbundled 2 Wire Analog Loop trouble repeat rates are demonstrated to be in parity with Qwest retail.

Table 2.5.4.1jjj – MR-7E – Repair Repeat Report Rate (Percent) - Interval Zone Two (A/HN)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Unbundled 2 Wire Analog	17.65% n: 34047	See note #1	0.00% n: 1	See note #1	Insuff Evid d=-.434, r0=.678, rd=.258

Note 1: The table cell is vacant due to no available data

Findings:
There was only one out of service condition in Interval Zone Two during the six-month test period for commercial CLECs, insufficient for parity/disparity conclusions.

Repair Appointments Met MR-9

Measure Description:
MR-9 measures the percentage of appointment dates and times for repair reports that are met. Disaggregations are based on dispatch status and MSA. The standard of comparison for this measure is parity with Qwest retail results.

Table 2.5.4.1lll – MR-9A – Repair Appointments Met (Percent) - Dispatches within MSAs (Y/MY)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	83.13% n: 32249	62.50% n: 8	83.05% n: 1062	Indeterminate -> DP d=0.236, r0=.060	Parity d=0.001, rd=.000
Residential	92.72% n: 273500	87.50% n: 8	96.02% n: 3518	Insuff Evid d=0.088, r0=.285, rd=.386	Parity d=-.072, rd=.000
UNE-P (POTS)	91.71% n: 305750	70.00% n: 10	74.00% n: 50	Disparity d=0.288, r0=.006	Disparity d=0.243, r0=.000

Findings:

Qwest fails to provide the Pseudo-CLEC and commercial CLECs with parity service for UNE-P repair appointments met. This disparity is the subject of AZIWO2125. Future commercial results will determine if the issues in AZIWO2125 have been resolved.

Aggregate CLEC results for business and residential repair appointments met are demonstrated to be in parity with Qwest retail.

Table 2.5.4.1mmm – MR-9B – Repair Appointments Met (Percent) - Dispatches outside MSAs (Y/MN)					
Product	***Standard***	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	93.54% n: 3481	See note #1	94.44% n: 18	See note #1	Indeterminate -> P d=-.019, rd=.130
Residential	94.48% n: 26752	See note #1	96.88% n: 64	See note #1	Parity d=-.059, rd=.007
UNE-P (POTS)	94.37% n: 30233	50.00% n: 2	100.0% n: 4	Disparity d=0.546, r0=.003	Insuff Evid d=-.240, r0=.687, rd=.211

Note 1: The table cell is vacant due to no available data

Findings:

For dispatches outside MSAs, aggregate CLEC Residential results for repair appointments met are in parity with Qwest retail. In addition, CGE&Y finds that Qwest is providing CLECs with parity levels for repair appointments met for Business troubles. Commercial CLEC volumes for UNE-P repair appointments met are insufficient for a parity determination.

Table 2.5.4.1nnn – MR-9C – Repair Appointments Met (Percent) - No dispatches (N/ MA)

Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
Business	97.17% n: 19374	100.0% n: 2	97.31% n: 1004	Insuff Evid d=-.169, r0=.595, rd=.325	Parity d=-.004, rd=.000
Residential	97.87% n: 114325	100.0% n: 3	98.28% n: 1049	Insuff Evid d=-.146, r0=.601, rd=.304	Parity d=-.015, rd=.000
UNE-P (POTS)	97.77% n: 133699	89.47% n: 19	100.0% n: 31	Disparity d=0.180, r0=.007	Parity d=-.150, rd=.047

Findings:
Pseudo-CLEC results for UNE-P show a disparity versus Qwest retail. However, Qwest only missed 2 out of 19 UNE-P repair appointments for the Pseudo-CLEC and missed no repair appointments for the commercial CLECs. Therefore, CGE&Y finds that Qwest is providing CLECs with parity levels for repair appointments met for UNE-P troubles. Qwest met all Pseudo-CLEC repair appointments for Business and Residential troubles. In addition, aggregate CLEC results demonstrate parity for Business and Residential troubles. Therefore, CGE&Y finds that Qwest is providing CLECs with parity levels for repair appointments met for Business and Residential troubles.

Customer and Non-Qwest Related Trouble Reports MR-10

Measure Description:
MR-10 measures the percentage of all trouble reports that were customer related. This is a diagnostic measure and included for informational purposes only. Planned troubles generated as part of the M&R functionality test were excluded from this measure.

Table 2.5.4.1ooo – MR-10 – Customer-Related Trouble Reports (Percent)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
Business	Diagnostic	23.08% n: 13	41.67% n: 3573	N/A	N/A
Residential	Diagnostic	47.37% n: 19	37.86% n: 7453	N/A	N/A
UNE-P (POTS)	Diagnostic	29.41% n: 17	42.95% n: 149	N/A	N/A
Unbundled 2 Wire Analog	Diagnostic	50.00% n: 18	32.06% n: 2249	N/A	N/A

Findings:
No performance standard is available for this measure, therefore no findings are possible.

Time to Provide Recorded Usage Records BI-1

Measure Description:
BI-1 measures the average time interval from the date of recorded daily usage to the date usage records are transmitted to the CLEC. This measure is reported for UNE and resale usage combined and the standard for comparison is parity against Qwest retail results.

Table 2.5.4.1ppp – BI-1A – Time to Provide Recorded Usage Records (Days)					
Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
UNE & Resale	Log: 2.98 Arith: 5.98 n: 136844015	Log: 1.48 Arith: 2.12 n: 14043	Log: 1.43 Arith: 1.85 n: 4827061	Log: Parity d=-.576, rd=.000 Arith: Parity d=-.257, rd=.000	Log: Parity d=-.603, rd=.000 Arith: Parity d=-.276, rd=.000

Findings:

Pseudo-CLEC and commercial CLEC results for time to provide UNE and resale usage records demonstrate parity with Qwest retail results. Qwest provided CLECs with UNE and Resale usage records in half the time it provided to its own retail operations.

Invoices Delivered Within 10 Days BI-2

Measure Description:
BI-2 measures the percentage of invoices that are delivered to the CLEC within 10 days of the bill date. This measure is reported for UNE and resale usage combined and the standard for comparison is parity against Qwest retail results.

Table 2.5.4.1qqq – BI-2 – Invoices Delivered Within 10 Days (Percent)					
Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
UNE & Resale	99.98% n: 137073	100.0% n: 5755	100.0% n: 73164	Parity d=-.015, rd=.000	Parity d=-.011, rd=.000

Findings:
Pseudo-CLEC and commercial CLEC results for UNE and Resale invoices delivered within 10 days of the bill date demonstrate parity with Qwest retail results. During the Functionality Test, all invoices were delivered within 10 days to both the Pseudo-CLEC and commercial CLECs.

Billing Accuracy BI-3

Measure Description:
BI-3 measures the percentage of billed revenue that is billed correctly on bills rendered during the reporting period. This measure is reported for UNE and resale usage combined and the standard for comparison is parity against Qwest retail results.

BI-3 – Billing Accuracy – Adjustments for Errors (Percent)					
Product	**Standard**	**Pseudo-CLEC Results**	**Aggregate CLEC Results**	**Pseudo-CLEC vs. Standard**	**Aggregate CLEC vs. Standard**
UNE & Resale	99.40% n: 8314961	100%	99.94% n: 224896	Parity	Parity d=-.054, rd=.000

Findings:
There were no adjustments to Pseudo-CLEC bills during the Functionality Test period. Commercial CLEC results demonstrate parity for billing accuracy with Qwest retail results for UNE and Resale.

Billing Completeness BI-4

Measure Description:
BI-4 measures the percentage of recurring and non-recurring charges associated with complete service orders that appear on the correct bill (next available bill). This measure is reported for UNE and resale usage combined and the standard for comparison is parity against Qwest retail results.

BI-4 – Billing Completeness (Percent)					
Product	Standard	Pseudo-CLEC Results	Aggregate CLEC Results	Pseudo-CLEC vs. Standard	Aggregate CLEC vs. Standard
UNE & Resale	97.92% n: 2333627	99.23% n: 1304	99.26% n: 65082	Parity d=-.057, rd=.000	Parity d=-.059, rd=.000

Findings:
Pseudo-CLEC and commercial CLEC results for UNE and Resale bill completeness demonstrated parity with Qwest retail results.

2.5.4.2 Performance Measurement Test Exit Criteria

Prior to exiting the Functionality Performance Measurement Evaluation, the following exit criteria had to be met:

Criterion	Completed
CGE&Y has analyzed all of the collected data.	✓
Declaration of either Parity/Compliance or Disparity/Noncompliance for all measurements detailed in MTP Appendix C.	✓
Incident Report Submitted to TAG for all Disparity / Noncompliance declarations.	✓
All Performance Measures have passed; and/or all parties agree the test is concluded; and/or the ACC calls an end to the test.	✓

Appendix A – Glossary

ACC	Arizona Corporation Commission
ADSL	Asynchronous Digital Subscriber Line
ASR	Access Service Request
BAN	Billing Account Number
BOC	Bell Operating Company
BRI	Basic Rate Interface
BRS	Basic Rate Service
CEMR	Customer Electronic Maintenance & Repair
CFA	Connecting Facility Assignment
CGE&Y	Cap Gemini Ernst & Young
CHC	Coordinated Hot Cut
CICMP	Co-provider Industry Change Management Process
CLEC	Competitive Local Exchange Carrier
CO	Central Office
CRIS	Customer Records Information System
CSR	Customer Service Record
DA	Directory Assistance
DCI	Doherty and Company, Inc.
DL	Directory Listing
DLEC	Data Local Exchange Carrier
DR	Data Request
DSL	Digital Subscriber Line
DUF	Daily Usage File
EB-TA	Electronic Bonding – Trouble Administration
EDI	Electronic Data Interchange
EEL	Enhanced Extended Loop
ETTR	Electronic Trouble Ticket Request
FCC	Federal Communications Commission
FOC	Firm Order Confirmation
GUI	Graphical User Interface
IABS	Integrated Access Billing System
ICA	Interconnection Agreement
ICNO	Installation Completion Notification
ILEC	Incumbent Local Exchange Carrier
IMA	Interconnect Mediated Access
IOF	Inter-Office Facilities
IRTM	IMA Response Time Measurement
ISDN	Integrated Service Digital Network
ISP	Internet Service Provider
IWO	Incident Work Order

LATA	Local Access Transport Area
LIS	Local Interconnection Service
LMOS	Loop Maintenance Operations System
LNP	Local Number Portability
LOA	Letter of Authorization
LOC	Loop Operation Center
LPIC	Local Primary Interexchange Carrier
LSR	Local Service Request
M&R	Maintenance and Repair
MLT	Mechanized Loop Test
MSA	Metropolitan Statistical Area
MTP	Master Test Plan
NDR	Network Design Requests
OA	Operator Assistance
OSS	Operations Support Systems
PAC	Performance Acceptance Certificate
PIC	Primary Interexchange Carrier
PICC	Pre-subscribed Interexchange Carrier Charge
PID	Performance Indicator Definitions
PON	Purchase Order Number
PRF	Provisioning Request Form
RBOC	Regional Bell Operating Company
RLD	Raw Loop Data
SAC	Service Additions and Changes
SME	Subject Matter Expert
SOC	Service Order Completion
SOP	Service Order Processor
SPOC	Single Point of Contact
TAG	Test Advisory Group
TN	Telephone Number
TSD	Test Standards Document
TTR	Trouble Ticket Request
UDF	Unbundled Dark Fiber
UDIT	Unbundled Dedicated Interoffice Transport
UNE-L	Unbundled Network Elements - Loop
UNE-P	Unbundled Network Elements - Platform
USOC	Universal Service Order Code
WNOT	Workforce Completion Notification

Appendix B – Incident Work Order Summary

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1034 CLOSED	Question regarding Release Notes for Release 6.0 dated November 17, 2000.	Qwest recognizes the need for a documentation update. Both the IMA Release Notes and the IMA User's Guide were reviewed for content.	Documentation Improvement
AZIWO1037 CLOSED	An address was validated and current CSR retrieved. When the representative clicked on Recap, from the Resale Form Screen, the system responded with an error message.	Qwest was able to recreate the error and updated the IMA Users Guide documentation February 2000 IMA Release 6.01	Documentation Improvement
AZIWO1042 CLOSED	CSR to validate that account had converted to a Resale account prior to issuing a change order. After entering data to retrieve a CSR, the system returned two selections for the telephone number.	Qwest does not consider this to be a system problem. Qwest will update the IMA User documentation to be made available with release 6.01.	Documentation Improvement
AZIWO1043 CLOSED	The Service Interval Guide needs to be updated to include all FOC intervals for both flow-through and non-flow-through orders.	Qwest has provided a response.	Documentation Improvement
AZIWO1045 OPEN	Order to convert 1 Residence line, with no features and a straight line main listing was issued 12/27/00 with an order completion date of 1/3/01. The SOC was not received on the 1/4/01 Completion and Loss Report.	Qwest agrees that this IWO outlines a system problem. Qwest is continuing its research and supplemental answers will be provided. --08/24/01: CGE&Y to provide a more detailed status.	OSS Change
AZIWO1046 CLOSED	According to the Resale Loss Report documentation, a local provider receives an entry on the loss report when the main line service is disconnected.	Qwest does not consider this IWO to outline a system problem	Documentation Improvement

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1047 CLOSED	The rep successfully validated the customer's service address during pre-order. Once the order entry process was completed, the rep submitted the order. The system responded with the error message "Address validation failed".	Qwest believes that this IWO is not due to a system problem, but due to the Pseudo-CLEC not applying the proper spelling of a street name.	Training Opportunity
AZIWO1069 CLOSED	When attempting to schedule an appointment, the error message "No Available or Selected Appointments found" was displayed. The representative was unable to go past the pre-order/ASQ stage of order entry.	Qwest believes that the issue identified is not a system error. Qwest recommends that the testers review the EDI Disclosure Document.	Training Opportunity
AZIWO1073 CLOSED	The IMA 6.0 documentation is not the screen that Co-Providers have access to in IMA. HPC contacted the IMA Helpdesk to determine why there were missing links on this screen.	Qwest acknowledges that the IMA documentation contains login screen(s) that are different than that returned to CGE&Y; however, this is not an anomaly.	Training Opportunity
AZIWO1074 CLOSED	The System Administration screen for the Corporate User Profile has two new entries that were delivered as part of the IMA 6.0 Release, which have not been explained.	The User Documentation for IMA Release 7.0 scheduled for release in April 2001will include a clarification.	Documentation Improvement
AZIWO1085 CLOSED	Rejected Order Message: The telephone number to contact a Qwest representative regarding the rejected order is incorrect.	Qwest will update IMA to reflect the correct contact number. This will be implemented with the IMA 7.01 release currently scheduled for June 16, 2001.	OSS Change
AZIWO1087 CLOSED	The Resale Completions Report for HPC shows a completion date of "00/00/0000" rather than an actual date.	Qwest could not find the additional PON provided for this IWO on the Loss or Completion report (additional information received by Qwest on 5/18/2001).	Documentation Improvement
AZIWO1089 CLOSED	The address could not be validated using EDI, the error message "Unable to locate specified address" is returned. The same address was input to IMA.	Qwest cannot evaluate the EDI script itself, we believe that this particular case represents an incorrect SAGA value.	System Tables

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1093 CLOSED	IWO 2071 defined a problem where UNE-P products were rejected by the gateway due to invalid USOC's.	Qwest has acknowledged that table updates were missed. Qwest has since addressed this one-time issue and has corrected the problem.	System Tables
AZIWO1094 CLOSED	The CSR billing information is different from what the LSR displays. The billing address for each account should be as shown on the LSR. The CSR document shows the billing address as the customer's actual address.	Based on CLEC feedback, Qwest changed its process to place end-user name and address in the bill section of the account.	Procedure
AZIWO1098 OPEN	SOC document received on 3/14/01 shows a successful disconnect for a multi-line residence resale account. When the CSR was pulled on 3/22/01 the account is listed as "live".	Qwest found the LSR was completed and final in all systems, except IMA, on 3/13/01. The account in question was part of the LSR clean up effort, and the account is now listed as FINAL in IMA. -- 08/24/01: -Qwest needs to recheck this condition.	OSS Change
AZIWO1107 OPEN	A review of test orders for the period 12-21-01 through 4-23-01 shows 13 test cases (PONs) where an unsolicited FOC was received with a due date change but no jeopardy message was received.	Qwest's review of the PONs indicate that the multiple FOCs were due to the FOC process not being followed appropriately and re-training is being conducted. -- 08/24/01:-CGE&Y is continuing the review	Training Opportunity
AZIWO1108 OPEN	A review of test orders indicates PO-3 (LSR Rejection Notice Interval) results for the Pseudo-CLEC exceed the standard performance of less than or equal to 4.5 hours for each interface (IMA-GUI and IMA-EDI) as stated in the PID.	The 4.5 benchmark has been superceded by recent events in the TAG. 08/31/01:-Qwest to provide a clear indicator of the bench marks for PO4 for both auto and manual rejects.-	Metrics
AZIWO1109 OPEN	CGE&Y's assessment of the PO-1 measure during the Performance Measurement audit concluded that only queries successfully processed in the normal course of doing business are used to calculate the PO-1 measurement, as opposed to what CLECs actually experience.	This IWO requires Qwest to implement its proposed PID changes retroactively. Once the PID changes have been implemented the data can then be validated for the conditions described in the IWO.	Metrics
AZIWO1114 OPEN	On 5/3/2001 HPC received a FOC with a Due Date change in the comment field only. The field that contains the Due Date still indicated a Due Date of 4/20/2001 instead of 5/8/2001 mentioned in the comment field.	Qwest has evaluated the comments brought forward by a participating CLECregarding IWO 1114 and does not believe that the IWO reveals a system problem. 08/31/01:-CGE&Y to finalize the PAC	Training Opportunity

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1117 CLOSED	If a FOC/Jeopardy is received on an LSR, a generic message is stated as the root cause of the problem. The next business day, an email is received defining the detail of the jeopardy.	CGE&Y takes issue with Qwest's communications process that involves the interplay of FOCs and jeopardies. In order to provide a substantive answer to this IWO's factual situation, Qwest described the series of events.	Procedure
AZIWO1119 HOLD	Per instructions from Qwest provided to a participating DLEC, the end user must get a bill before the raw data tool is tabled with the end user's number allowing the DLEC to perform a loop qualification.	A system change will be made to address the data latency issue. --08/24/01:-CGE&Y will review and take appropriate actions	OSS Change
AZIWO1121 OPEN	When a trouble report is submitted by the DLEC to Qwest on a service recently installed, the Qwest repair records show no existence of DSL service.	Qwest has not received the background information. --8/17/01: -CGE&Y contends that Qwest has enough information to move forward.	System Tables
AZIWO1123 CLOSED	Testing of a DSL loop sometimes requires a Qwest tech at the central office and at the end user's NID.	Qwest's provided general information about the Installation Options to the Account Team Manager relating to Cooperative Testing.	Training Opportunity
AZIWO1124 OPEN	The raw data loop qualification tool does not contain sufficient directory number information.	Qwest is working this issue and plans to alleviate it with an enhancement to IMA.	OSS Change
AZIWO1126 CLOSED	A participating DLEC currently has a contractual agreement with Qwest to change the PO-5 FOC return time to 72 hours.	Qwest has determined that there appears to be a misunderstanding caused by Qwest's response to an incorrect premise in the data request in question.	Metrics
AZIWO1129 OPEN	In reviewing raw data gathered to evaluate results from the functionality test, CGE&Y has discovered that Qwest's MSA and Density Translation tables are out of date.	Qwest has not implemented the new MSA Table as previously committed. --08/24/01:-CGE&Y is waiting for response to Data Request before any further actions can be taken	System Tables
AZIWO1130 CLOSED	HPC followed Qwest's process for executing an amendment, and took approximately 7 months to get to a signed agreement between HPC and Qwest.	The delays in the LNP Managed Cut Amendment were the result of breakdowns in communications coupled with business process problems and inadequate monitoring of the paper flow process within Qwest	Procedure

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1132 CLOSED	Qwest required approximately 2 months, and 4 revisions to its UNE-P Amendment for Pseudo-CLEC before HPC could sign the amendment.	Qwest indicated that much of the time that was the subject of this IWO was beyond Qwest's control.	Procedure
AZIWO1134 CLOSED	A signed copy of Amendment No.3 to the HPC Interconnection Agreement was received on March 14, 2001. Qwest signed the document on February 1, 2001 after the CLEC signed the document on January 30, 2001.	The delays were the result of breakdowns in communications coupled with business process problems and inadequate monitoring of the paper flow process within Qwest.	Procedure
AZIWO1136 CLOSED	In the CFAR HPC received an EDI syntax error in the N1 (BT).	This was part of the EDI Re-Certification under release 6.0.	OSS Change
AZIWO1137 CLOSED	In the RPL section (pages 96-97) the LIT (8) and PRILOC (10) are listed as not used for a disconnect.	This was part of the EDI Re-Certification under release 6.0.	Documentation Improvement
AZIWO1139 CLOSED	There are two PO1 loops that are returned on the DLRR. CR will have only one PO1 loop depending the response.	This was part of the EDI Re-Certification under release 6.0.	OSS Change
AZIWO1140 OPEN	CGE&Y observed a possible deficiency in version 6.3 of the Arizona PID.	The PIDs have been developed and implemented as defined in the PIDs. Qwest understands the purpose of the audit is to verify that the PIDs have been implemented as mutually agreed upon by the participants of the AZ TAG and as such finds this TI out of scope.	Metrics
AZIWO1142 OPEN	Title - Jeopardy after SOC	08/24/01:-CGE&Y to review the Qwest Formal Response.	OSS Change

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1151 OPEN	CGE&Y observed that the bill CRIS format on February bills changed from the format of the bills previously printed.	Qwest's generates the CRIS bills in one of two formats. Qwest system is in the process of being changed in January 2002.	Procedure
AZIWO1152 OPEN	CGE&Y observed that a test case requesting that the secondary line only be converted, instead the primary line was converted.	The order writer who committed the original error was coached on correctly applying EBD dates	Training Opportunity
AZIWO1153 OPEN	CGE&Y observed that the bills have a Federal Access Charge on the bills. The rate amount varies between the bills.	Qwest rates are charged based upon the USOC that is entered on the LSR. Contradictions were found to the information provided by Qwest. CGEY is waiting for the results of Qwest's research.	Training Opportunity
AZIWO1154 OPEN	CGE&Y observed that charges made for 'No Solicitation Calls" appear in to be listed either with the monthly service charges or separately in the Service Additions and Charges section.	CGE&Y's observation is correct. Order entry can cause this difference based on the needs of the order	Training Opportunity
AZIWO1155 OPEN	CGE&Y observed that the monthly service charge for new activations does not include all the charges.	Qwest responded that when the original account was changed, the journaling procedure erred the record for NSW (no solicitation calls) due to a bad journaling code. This code was corrected at the end of January.	OSS Change
AZIWO1156 OPEN	CGE&Y observed that the transferred amount on the February bill is $18.47. The balance on the January bill is $36.03.	Received Qwest response.	OSS Change
AZIWO1157 OPEN	CGE&Y observed that the original account number in Jan was different than in Feb. In addition, there was a new account in the Feb bill for the same.	Received Qwest response.	OSS Change
AZIWO1158 OPEN	The Pseudo-CLEC was set up as a tax-exempt account. CGE&Y observed that taxes were charged to the Pseudo-accounts.	Received Qwest response.	OSS Change
AZIWO1159 OPEN	CGE&Y observed that the February bill had a second bill for this TN.	Received Qwest response.	OSS Change
AZIWO1160 OP	CGE&Y observed a credit problem on the proration of a disconnect.	Received Qwest response.	OSS Change

IWO #	Incident Work Order	Qwest's Response	Results
E N			
AZIWO1161 O P E N	CGE&Y observed that on the February and March bills, there was an inconsistency in the details of the new accounts.	Received Qwest response.	OSS Change
AZIWO1162 O P E N	CGE&Y observed a problem with the rating of Federal Access USOC.	Received Qwest response.	Training Opportunity
AZIWO1163 O P E N	CGE&Y generated an LSR to delete features. They were converted rather than deleted.	Received Qwest response.	Training Opportunity
AZIWO1164 O P E N	CGE&Y observed that this TN is for a dual listing.	Received Qwest response.	OSS Change
AZIWO1165 O P E N	CGE&Y observed that this TN is for a dual listing. The bill has a one-time charge of $6.97 for the additional listing.	Received Qwest response.	Training Opportunity
AZIWO1166 O P E N	CG&EY observed two TNs were included on the UNE-Loop bill for 3/25/01.	Received Qwest response.	Training Opportunity
AZIWO1167 O P E N	CGE&Y observed a problem in performing the validation of the Summary Bills.	Received Qwest response.	Procedure
AZIWO1168 O P E N	CGE&Y observed a problem in validating the ODUF calls against the bills.	Received Qwest response.	Procedure
AZIWO1169 O P E N	CGE&Y observed that ten TNs were included on the DUF files that do not belong to the Pseudo-CLEC.	Received Qwest response.	OSS Change
AZIWO1181 O P E N	CGE&Y requested a listing of the USOC file and received a file that included codes and descriptions, but not the rates	Received Qwest response.	Procedure

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1182 OPEN	CGEY& observed a delay in two accounts between the time of the SOC and appearance of the bill.	Received Qwest response.	Training Opportunity
AZIWO1183 OPEN	CGEY observed that this account appeared to have a double charge for the NPU USOC.	Received Qwest response.	Training Opportunity
AZIWO1184 OPEN	The P-CLEC requests that Qwest address why the SOC was received so late.	Received Qwest response.	Training Opportunity
AZIWO1185 OPEN	CGE&Y observed that an LSR to disconnect an account was issued on 1/9/01, but the bill shows a disconnect of 1/17/01.	Received Qwest response.	Training Opportunity
AZIWO1186 OPEN	CGE&Y observed that TNs that have a USOC code of SEA are displayed two ways under the Qwest Local Service section of the bill.	Received Qwest response.	Training Opportunity
AZIWO1187 OPEN	Twelve Pseudo accounts had usage calls incorectly recorded on the DUF.	Received Qwest response.	Procedure
AZIWO1188 OPEN	CGE&Y requests a formal definition of when the billing for activations actually starts.	VQwest response.	OSS Change
AZIWO1189 OPEN	CGE&Y observed that invoices are showing a payment due date of 22 days from the date of the invoice.	Received Qwest response.	OSS Change
AZIWO1195 OPEN	In comparing EDI bills to paper bills, CGE&Y observed discrepancies in the Charges Due where the total amount due did not match the amount due as indicated on the paper bill (but all items and totals matched).	Qwest has discovered that the Transferred Balance line of the bill is being added in twice to the Electronic bill totals. This internal issue will be fixed on October 12, 2001.	OSS Change
AZIWO2013 CLO	A Friendly test account connected to LPIC Touch America Detail dialed to identify which intralata carrier was assigned to the	Qwest was able to reproduce the stated error. The issue has been fixed and now correctly shows Touch America.	System Tables

IWO #	Incident Work Order	Qwest's Response	Results
S E D	account.		
AZIWO2050 C L O S E D	On the Review Full CSR screen, the billing telephone number was entered in the WTN field to retrieve the CSR.	Qwest acknowledges that this IWO identifies a system problem. A system patch will be deployed by 1/25/01 to resolve this issue.	OSS Change
AZIWO2052 C L O S E D	Inappropriate contact with the end-user customer regarding a pending CLEC new install order.	Qwest's records do not support the claim that Qwest inappropriately contacted the "end-user customer" regarding a pending CLEC new install order.	Training
AZIWO2053 C L O S E D	Numerous resale orders were rejected with the message "RESALE Form: Service Details Section: Invalid USOCs...".	Qwest does not agree that this IWO identifies a problem. The error message given was displayed as a result of an incorrect TOS value of 1BF used on the LSR.	Training Opportunity
AZIWO2054 C L O S E D	Numerous resale orders were rejected with the message "RESALE Form: Service Details Section: Invalid USOCS ...".	Qwest believes that the USOC was mis-typed	Training Opportunity
AZIWO2057 C L O S E D	The DL of the LSR in EDI has an entry for both the primary and additional listing, but when the CSR was retrieved to validate order completion, the primary listing was present, but the additional listing was not.	Qwest acknowledges human error. Qwest has taken the action to coach the employee responsible on how to avoid this error in the future.	Training Opportunity
AZIWO2060 O P E N	After an order was completed, the rep. attempted to enter a change order, the system returned the error message "Not authorized to retrieve CSR".	The error message will be broken into four conditions and will be implemented on 9/28/01.	OSS Change
AZIWO2061 C L O S E D	An order was issued and the first LSR came back from HP with (2) new TNs for this friendly. Neither number was issued for the friendly.	FOC sent on 2/13/01 has the correct telephone number that was installed. The order is complete and has posted to the Qwest internal systems. Therefore, the CSR reflects the correct information.	OSS Change

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO2062 CLOSED	The EU form has the correct billing address entered by the representative. The CSR however has the customer's service address as the billing location.	Qwest research has found that the LSR and service order was issued correctly.	Training Opportunity
AZIWO2068 OPEN	An order was submitted to Qwest with no indication of manual intervention, the expectation was that the FOC would be received within 20 minutes.	The test administrator and pseudo-CLEC should not have expected an FOC within 20 minutes. Qwest believes that they should readdress their processes for determining which FOC interval applies to which type of order.	Procedure
AZIWO2069 OPEN	An order was submitted via EDI and a FOC has not been received.	The Qwest order typist that did not send the FOC has been re-trained on the correct process for sending FOCs.	Training Opportunity
AZIWO2071 CLOSED	Order entered to change a retail line to UNE-P received error message "RESALE Form:Service Details Section:Invalid ...".	Qwest has researched the error and agrees that this IWO constituted a system problem	OSS Change
AZIWO2095 CLOSED	The Loss & Completion report for the High Performance Corporation has missing or invalid data through out the report.	Qwest employees have been coached and re-trained on the standard procedures.	Training Opportunity
AZIWO2098 CLOSED	While attempting to test the functions of the CEMR system of trouble reporting, CGE&Y observed that the "MLT" function of the system was unavailable.	The participating CLEC's understanding is correct in that the digital certificate process will update an individual's access to specific records based on the requested ACNA/RSID.	OSS Change
AZIWO2099 CLOSED	Interim results covering orders completed by April 30, 2001 indicate a disparity for OP-4, which is already statistically significant and substantial as defined by the criteria of Section 9 of the TSD.	Qwest has been investigating the results of OP-4C and expects the actions documented to move this measure to parity. --8/24/01:- Qwest to confirm if the PID changes were implemented	Metrics

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO2100 OPEN	Interim results covering orders completed by April 30, 2001 indicate disparities for OP-4, which are already statistically significant and substantial as defined by the criteria of Section 9 of the TSD.	Qwest results for April indicate that non-dispatched Centrex 21, PBX and ISDN BRI are all performing at parity at an aggregate CLEC level. --08/24/01: Consider equalizing offered-due date policies between CLEC and Retail	Metrics
AZIWO2101 OPEN	During the analysis of a customer trouble the CSR of the account was reviewed. The Reseller ID field was blank on the CSR instead of the correct reseller ID of H08. CGE&Y records show that this account was SOC'ed on 4/27/01. The test account information is shown below.	Qwest has completed research and has affirmed that the missing entry in the cross-reference table was the cause of the issue. CGE&Y team to perform validation test.	OSS Change
AZIWO2102 OPEN	During Maintenance & Repair Testing, several trouble tickets were successfully entered, and submitted, though the CEMR system.	CEMR has been modified to retain tickets for better trouble reporting.	OSS Change
AZIWO2103 OPEN	M&R trouble tickets were submitted through the CEMR system. When checked in the Maintain Trouble Report screen, the status showed as Open/Active and appeared "normal" with the exception of one ticket.	Qwest determined that a software bug resulted in the corruption of the Tracking Report ID noted above. This bug will be fixed in the CR Patch MEDIT05301 to be implemented in production by July 7th, 2001	OSS Change
AZIWO2104 OPEN	In the Functionality Test, interim results covering orders completed by April 30, 2001, indicate a disparity for OP-4 which is already statistically significant and substantial as defined by the criteria of Section 9 of the TSD for the disaggregation of NonDispatched UNE-P-POTS orders	Qwest believes that this conclusion is in error. Qwest is uncertain what the term negotiated due dates is intended to represent in this IWO. 08/24/01: -Consider equalizing offered-due date policies between CLEC and Retail	Metrics
AZIWO2105 OPEN	The RSOR data files covering HPC transactions from December 2000 through April 2001 reveal that 17 Service Order Numbers occur more than once for HPC.	Qwest concurs that the RRS RSOR program is in some cases double counting orders. Qwest will implement a coding change. 08/24/01:-Pending CGE&Y review of the Qwest 8/21 response.	OSS Change

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO2106 OPEN	The PO-6 performance measurement is now based on a new datasource WNOT (Work Completion Notifications). Many service orders that have been completed are not being included in this datasource.	Additional development and proposed PID revisions are currently underway for PO-6. Qwest requests this Test Incident be withdrawn and the issue re-evaluated by CGE&Y once revised data is presented.	Metrics
AZIWO2107 OPEN	The logarithmic average provisioning interval is significantly and substantially longer for Pseudo-CLEC dispatched BUS orders within MSAs than for Retail.	Received Qwest response	Metrics
AZIWO2108 OPEN	In the Functionality Test, interim results covering the period up to April 30, 2001, indicate that FOCs are not being returned to the PseudoCLEC in a sufficiently timely fashion at the benchmark rate of 90% for Resale LSRs submitted via EDI.	Received Qwest response	Metrics
AZIWO2109 OPEN	Better Jeopardy notification provided to HPC than CLECs for Non-Designed Missed Due-Date Orders (PO-8, PO-9)	Received Qwest response	Metrics
AZIWO2110 OPEN	OP-3 Disparities: RES and ISDN-BRS. The table indicates that commitments to the PseudoCLEC were not met as frequently as for Retail customers on Residential and ISDN Basic Rate Services orders.	Received Qwest response	Metrics
AZIWO2111 OPEN	UNE-P No advance Jeopardy notification provided (PO-9).	Received Qwest response	Metrics
AZIWO2113 OPEN	Interim results covering LSRs received by May 31, 2001, indicate low flow-thru rates for CLEC LSRs.	When analyzed by month, the data clearly shows that the gap between the P-CLEC and the aggregate of all Arizona CLECs is steadily shrinking. --08/24/01:-CGE&Y to reevaluate with current data	Metrics
AZIWO2114 OPEN	Interim results covering LSRs responded to by May 31, 2001, indicate a significantly and substantially higher PseudoCLEC LSR Rejection rate than that experienced by commercial	Qwest analysis indicates that in all but one case, the P-CLEC reject percentage was actually lower than that of the aggregate CLEC. -8/31/01: -This is now pending CGE&Y evaluation.	Metrics

IWO #	Incident Work Order	Qwest's Response	Results
	CLECs		
AZIWO2115 **O P E N**	CGE&Y has observed multiple instances of misuse of the FOC communication method as described in Qwest's White Paper 'Firm Order Confirmation Evaluation Results' dated August 6, 2001.	Qwest findings are contained in a FOC white paper. ** -8/31/01:-Pending CGE&Y replay to Qwest formal response	Procedure
AZIWO2116 **O P E N**	–Received FOC prior to the complete processing of the LSR.	Qwest has made productivity-related improvements to its LSR processing. ** 9/07/01:-Waiting CGE&Y review of Formal Response	Procedure
AZIWO2117 **O P E N**	The address search criteria in IMA-GUI does not provide adequate information for a DLEC to lock in an end user's address for a loop qualification.	A participating DLEC desires improvements to the address validation functionality and asserts that Qwest has a legal obligation to do so. Qwest disagrees. CGE&Y plans to place this on the agenda for the weekly IWO meeting.	OSS Change
AZIWO2118 **O P E N**	In the Loss and Completion Report received, we observed inconsistencies within some of the records. PONs are missing for 488 order-TN's.	Qwest researched associated records and the vast majority (88%) of missing PONs related to a systems fix implemented on February 14th, 2001. == 09/14/01: Pending Qwest response to CGE&Y clarification of this IWO	OSS Change
AZIWO2120 **O P E N**	DUF File Problems		OSS Change
AZIWO2999 **P E N D I N G**	This IWO was originally created to replace IWO1124 for retest purposes, but it was determined that 1124 can remain and still be retested.		OSS Change
AZIWO3008 **C L O S E D**	Order Script requested convert with straight line listing, and additional listing. Order was issued with this information as well as the same billing address as was existing.	Qwest identified four inherent issues during analysis of IWO 3008-1 and recognizes one of them as a system problem.	OSS Change

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1001 CLOSED	A scenario was executed that would test whether or not the facilities belonged to HPC. We could not attach the CFA's using our ACNA.	HPC couldn't validate the CFA because a cross-reference table had not been built. Upon learning of this problem, the table was built.	System Tables
AZIWO1002 CLOSED	Change request #18813 was opened by Qwest to correct a problem with the "CSR with Error response" transaction.	Qwest has determined that this is not a valid error condition. An EDI user will have 5 rather than 1 error returned due to the design of EDI.	OSS Change
AZIWO1003 CLOSED	Change request #17373 was opened by Qwest to correct a syntactically invalid N1 segment returned for the CC field.	This CR was assigned a severity level of 2. This problem was corrected on 7/24/2000	OSS Change
AZIWO1004 CLOSED	Change request #17374 was opened by Qwest to correct a syntactically invalid N1 segment for the CC field.	This CR was assigned a severity level of 2. This problem was corrected on 7/24/2000	OSS Change
AZIWO1005 CLOSED	Change request #17672 was opened by Qwest to correct a problem with the ACK that was returned.	The CR was opened as a severity level 2. The problem was corrected in production on 8/18/2000	OSS Change
AZIWO1006 CLOSED	Change request 17937 was opened to correct a problem with the "CSR Multiple Match Response" transaction.	This CR was assigned a severity level of 2. This problem was corrected on 8/18/2000	OSS Change
AZIWO1007 CLOSED	Change request #17953 was opened by Qwest to correct a problem with the "CSR Multiple Match Response" transaction.	CR # 17953 submitted requesting that these fields be returned for "Multiple CSR Match" transactions. This Change Request was part of the IMA 7.0 release on April 2001	OSS Change

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1008 CLOSED	Change request #18793 was opened by Qwest to correct the "Query to obtain list of CFA's response" transaction.	IMA software error. The error was an assigned Qwest severity level of 2. A production patch was released September 25, 2000.	OSS Change
AZIWO1009 CLOSED	Change request #18959 was opened by Qwest to correct the problem with the "LSR query response" transaction.	IMA software error. The error was assigned Qwest severity level of 2. A fix for IMA release 6.0 was deployed on December 8, 2000.	OSS Change
AZIWO1010 CLOSED	Change request #17372 was opened by Qwest to correct the problem of generating a PO1 when there are no subordinate segments.	IMA software error. The error was assigned Qwest severity level of 3. A fix for IMA release 6.0 was deployed on December 8, 2000.	OSS Change
AZIWO1011 CLOSED	Change request #17513 was opened by Qwest to correct the "Facility availability query response" transaction contained a "PENDING" PO1 loop that should not be there.	IMA software error with an assigned Qwest severity level of 3. A fix for IMA release 6.0 was deployed on December 8, 2000.	OSS Change
AZIWO1012 CLOSED	Change request #17943 was opened by Qwest to correct a problem with the "CSR Multiple Match response" transaction.		OSS Change
AZIWO1013 CLOSED	Qwest opened change request #17998 to correct an issue with the "Private Line conversion as is" transaction.	IMA software error with an assigned Qwest severity level of 3. A fix for IMA release 6.0 was deployed on December 8, 2000.	OSS Change
AZIWO1014 CLOSED	Change request #18580 was opened by Qwest to correct a problem with the "Convert POTS to Unbundled Loop Response" transaction.	Qwest agrees and has an assigned severity level of 3. A fix for IMA release 6.0 was deployed on December 8, 2000.	OSS Change

IWO #	Incident Work Order	Qwest's Response	Results
AZIWO1015 CLOSED	CGEY executed a scenario that would test whether or not the facilities belonged to HPC. CGEY could not attach the CFA's using our ACNA.	Qwest does not consider this testing incident to be a test exception. It is a result of the constraints of the OSS test using a Pseudo-CLEC.	System Tables
AZIWO1016 CLOSED	Change request #17427 was opened by Qwest to correct the "Service availability query response" transaction.	Qwest has modified their gateway to support greater than 1 occurrences of the SLN.	OSS Change
AZIWO1017 CLOSED	Change request #18204 was opened by Qwest to correct the "Service Availability query response" transaction.	The problem was discovered as a table not loaded correctly for the combination of 602/481 in production or interoperability. The problem was corrected on 8/22/2000	System Tables

Appendix C – Call Detail Log

CALL DETAIL LOG

NAME: _____ **DATE:** _____

ADDRESS: _____

TEST LINE TELEPHONE NUMBER: ___(___)_____

Test Number	Test Call Description	Date	Start Time of Call	End Time of Call	Comments
1	900/976 Blocking				
2	800 Number Dialing Capability				
3	Directory Assistance				
4	Long Distance Carrier Verification				Long Distance Carrier: _____
5	IntraLATA Long Distance Carrier				
6	Long Distance Call Completion				
7	Local Call Completion				
8	In-State InterLATA Long Distance Call Comp.				
9	In-State IntraLATA Long Distance Call Comp.				
10	One Plus Directory Assistance Call				

Please add any additional comments: _____

_____

I certify the information completed above to be true and accurate. I further certify that I made the phone calls at the start and end times shown above.

Appendix D – Test Call Instructions

Phoenix Test Call Instructions

Test Call Instructions

As a volunteer, please follow the instructions outlined below and complete the attached Call Detail Log to record these test calls. Return the top copy of the Call Detail Log in the Return Postage Paid Envelope within 24 hours of completing these test calls (retain the bottom copy of the original call Detail Log for your records).

Please perform these calls on the date indicated on the attached Call Detail Log.

If you have any problems or questions with these instructions, please contact Jason Stults at 1-800-227-4230 x3789 or Andrew Bennett at 1-800-227-4230 x2721 for clarification.

TEST CALL 1: Verify 900 blocking
Dial 1-900-656-2408 from the test line
Verify you hear the recorded blocking message such as: "At the customer's request you cannot dial that number from this line".
The call will be a failure if you are connected to the 900 number.

TEST CALL 2: Verify ability to dial 800 numbers.
Dial 1-800-227-4230 from the test line to connect to the Cap Gemini voice messaging system.
When you hear, "Thank you for calling Cap Gemini America" the test call is deemed successful, hang up and record in the Call Detail Log. If you do not hear "Thank you for calling Cap Gemini America", hang up and note the call was not successful in the comments section of the Call Detail Log.

TEST CALL 3: Verify Directory Assistance availability.
Dial 1411 from the test line.
Ask for the telephone number for the Local US Post Office in your city.
Verify that the Directory Assistance Operator was able to give the number; record the number given on the Call Detail Log. If the call was not successful, please note this in the comments section of the Call Detail Log.

TEST CALL 4: Verify Long Distance Carrier
Dial 1-700-555-4141 from the test line.
You will hear the name of the long distance carrier on the test line. Hang up and record the name of the long distance carrier in the comment section of the Call Detail Log. If you are not connected to a Long Distance carrier or if you are not assigned to a Long Distance company, make a note that you were not connected or assigned, as appropriate, on the Call Detail Log.

TEST CALL 5: Verify IntraLATA Long Distance Carrier
Dial 1+Area Code-555-4141 from the test line. (Area Code = Your Area Code)
You will hear the name of the IntraLATA long distance carrier on the test line. Hang up and record the name of the IntraLATA carrier in the comment section of the Call Detail Log. If you are not connected to a carrier, or if you are not assigned to a company, make a note that you were not connected or assigned, as appropriate, on the Call Detail Log.

TEST CALL 6: Long Distance Call Completion
Dial 469-330-1299, note the start time of the call, and listen to the message. Hang up and record the call duration on the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 7: Local Call Completion
Dial 606-863-0127, note the start time of the call, and listen to the message. Hang up and record the call in the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 8: In-State Interlata Long Distance Call Completion
Dial 520-535-7820, note the start time of the call, and listen to the message. Hang up and record the call duration on the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 9: In-State Intralata Long Distance Call Completion
Dial 520-772-9034, note the start time of the call, and listen to the message. Hang up and record the call duration on the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 10: Verify One Plus Directory Assistance availability.
Dial 1-303-555-1212 from the test line.
When the operator asks "for what city?" You will respond with "Aurora".
And when the Operator asks "for what listing?" You will respond with "Nova Southeastern University"
Verify that the Directory Assistance Operator was able to give the number; record the number given on the Call Detail Log and hang up. Note: If given the option to connect automatically dial the number, do not choose this option.
If the call was not successful, please note this in the comments section of the Call Detail Log.

Thank You for your participation in this effort!

Prescott Test Call Instructions

Test Call Instructions

As a volunteer, please follow the instructions outlined below and complete the attached Call Detail Log to record these test calls. Return the top copy of the Call Detail Log in the Return Postage Paid Envelope within 24 hours of completing these test calls (retain the bottom copy of the original call Detail Log for your records).

Please perform these calls on the date indicated on the attached Call Detail Log.

If you have any problems or questions with these instructions, please contact Jason Stults at 1-800-227-4230 x3789 or Andrew Bennett at 1-800-227-4230 x2721 for clarification.

TEST CALL 1: Verify 900 blocking
Dial 1-900-656-2408 from the test line
Verify you hear the recorded blocking message such as: "At the customer's request you cannot dial that number from this line".
The call will be a failure if you are connected to the 900 number.

TEST CALL 2: Verify ability to dial 800 numbers.
Dial 1-800-227-4230 from the test line to connect to the Cap Gemini voice messaging system.
When you hear, "Thank you for calling Cap Gemini America" the test call is deemed successful, hang up and record in the Call Detail Log. If you do not hear "Thank you for calling Cap Gemini America", hang up and note the call was not successful in the comments section of the Call Detail Log.

TEST CALL 3: Verify Directory Assistance availability.
Dial 1411 from the test line.
Ask for the telephone number for the Local US Post Office in your city.
Verify that the Directory Assistance Operator was able to give the number; record the number given on the Call Detail Log. If the call was not successful, please note this in the comments section of the Call Detail Log.

TEST CALL 4: Verify Long Distance Carrier
Dial 1-700-555-4141 from the test line.
You will hear the name of the long distance carrier on the test line. Hang up and record the name of the long distance carrier in the comment section of the Call Detail Log. If you are not connected to a Long Distance carrier or if you are not assigned to a Long Distance company, make a note that you were not connected or assigned, as appropriate, on the Call Detail Log.

TEST CALL 5: Verify IntraLATA Long Distance Carrier
Dial 1+Area Code-555-4141 from the test line. (Area Code = Your Area Code)
You will hear the name of the IntraLATA long distance carrier on the test line. Hang up and record the name of the IntraLATA carrier in the comment section of the Call Detail Log. If you are not connected to a carrier, or if you are not assigned to a company, make a note that you were not connected or assigned, as appropriate, on the Call Detail Log.

TEST CALL 6: Long Distance Call Completion
Dial 469-330-1299, note the start time of the call, and listen to the message. Hang up and record the call duration on the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 7: Local Call Completion
Dial 520-772-9034 note the start time of the call, and listen to the message. Hang up and record the call in the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 8: In-State Interlata Long Distance Call Completion
Dial 602-863-0127, note the start time of the call, and listen to the message. Hang up and record the call duration on the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 9: In-State Intralata Long Distance Call Completion
Dial 520-323-7820, note the start time of the call, and listen to the message. Hang up and record the call duration on the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 10: Verify One Plus Directory Assistance availability.
Dial 1-303-555-1212 from the test line.
When the operator asks "for what city?" You will respond with "Aurora".
And when the Operator asks "for what listing?" You will respond with "Nova Southeastern University"
Verify that the Directory Assistance Operator was able to give the number; record the number given on the Call Detail Log and hang up. Note: If given the option to connect automatically dial the number, do not choose this option.
If the call was not successful, please note this in the comments section of the Call Detail Log.

Thank You for your participation in this effort!

Tuscon Test Call Instructions

Test Call Instructions

As a volunteer, please follow the instructions outlined below and complete the attached Call Detail Log to record these test calls. Return the top copy of the Call Detail Log in the Return Postage Paid Envelope within 24 hours of completing these test calls (retain the bottom copy of the original call Detail Log for your records).

Please perform these calls on the date indicated on the attached Call Detail Log.

If you have any problems or questions with these instructions, please contact *Jason Stults at 1-800-227-4230 x3789 or* Andrew Bennett at 1-800-227-4230 x2721 for clarification.

TEST CALL 1: Verify 900 blocking
Dial 1-900-656-2408 from the test line
Verify you hear the recorded blocking message such as: "At the customer's request you cannot dial that number from this line".
The call will be a failure if you are connected to the 900 number.

TEST CALL 2: Verify ability to dial 800 numbers.
Dial 1-800-227-4230 from the test line to connect to the Cap Gemini voice messaging system.
When you hear, "Thank you for calling Cap Gemini America" the test call is deemed successful, hang up and record in the Call Detail Log. If you do not hear "Thank you for calling Cap Gemini America", hang up and note the call was not successful in the comments section of the Call Detail Log.

TEST CALL 3: Verify Directory Assistance availability.
Dial 1411 from the test line.
Ask for the telephone number for the Local US Post Office in your city.
Verify that the Directory Assistance Operator was able to give the number; record the number given on the Call Detail Log. If the call was not successful, please note this in the comments section of the Call Detail Log.

TEST CALL 4: Verify Long Distance Carrier
Dial 1-700-555-4141 from the test line.
You will hear the name of the long distance carrier on the test line. Hang up and record the name of the long distance carrier in the comment section of the Call Detail Log. If you are not connected to a Long Distance carrier or if you are not assigned to a Long Distance company, make a note that you were not connected or assigned, as appropriate, on the Call Detail Log.

TEST CALL 5: Verify IntraLATA Long Distance Carrier
Dial 1+Area Code-555-4141 from the test line. (Area Code = Your Area Code)
You will hear the name of the IntraLATA long distance carrier on the test line. Hang up and record the name of the IntraLATA carrier in the comment section of the Call Detail Log. If you are not connected to a carrier, or if you are not assigned to a company, make a note that you were not connected or assigned, as appropriate, on the Call Detail Log.

TEST CALL 6: Long Distance Call Completion
Dial 469-330-1299, note the start time of the call, and listen to the message. Hang up and record the call duration on the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 7: Local Call Completion
Dial 520-323-7820, note the start time of the call, and listen to the message. Hang up and record the call in the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 8: In-State Interlata Long Distance Call Completion
Dial 602-863-0127, note the start time of the call, and listen to the message. Hang up and record the call duration on the Call Detail Log. If call did not go through, please note that in the comments section of the Call Detail Log.

TEST CALL 9: : Not Applicable to this Test Packet (please skip this call and leave blank on the Call Detail Log)

TEST CALL 10: Verify One Plus Directory Assistance availability.
Dial 1-303-555-1212 from the test line.
When the operator asks "for what city?" You will respond with "Aurora".
And when the Operator asks "for what listing?" You will respond with "Nova Southeastern University"
Verify that the Directory Assistance Operator was able to give the number; record the number given on the Call Detail Log and hang up. Note: If given the option to connect automatically dial the number, do not choose this option.
If the call was not successful, please note this in the comments section of the Call Detail Log.

Thank You for your participation in this effort!

Appendix E – Unplanned Trouble Log

Name: _____ Date: _____

Address: _____

_____

Test Line #: ( ) _____

(Newly Installed for test or converted line)

Can be reached #(s): ( ) _____

( ) _____

Trouble Description: *(Please provide a detailed account of the problem you are experiencing.)*

Trouble effected my test calls by: *(How did the trouble inhibit your test calls? Test Call #?)*

Problem is: **CONSTANT** **INTERMITTENT** **FREQUENCY UNKNOWN**

(Please Circle One.)

Additional Comments or Concerns:

NOTE: Please return this form with the "Call Detail Log" you have filled out -- even if there was no trouble. Also, please report your trouble to Maintenance and Repair at 877-389-2032. Customer Service can be reached at 877-341-4578.

For CGE&Y Internal Use Only:

___ C ___ U ___ H ___ R

Appendix F – AT&T / HPC / CGE&Y Interface Process For Qwest OSS Test

AT&T / HPC /CGE&Y Interface Process For Qwest OSS Test

1.0 Overview

This document describes the process to be used by AT&T, HPC and CGE&Y in support of unbundled loop (UNE-L) and Number Portability (NP) test cases for the Qwest OSS test. The test cases to be supported by AT&T, which are based on the scenarios found in the Master Test Plan, Appendix A, include:

- Conversion from retail, resale, or unbundled loop with ports (UNE-P) to UNE-L, UNE-L with NP or UNE NP.
- new UNE-L

AT&T is working in partnership with HPC (the pseudo-CLEC) to provision and test unbundled loop and LNP services. AT&T has dedicated vacant co-location facilities to be used when processing these types of orders and will act as the engineering/switching group for HPC.

2.0 Facility Identification

AT&T has identified collocation sites and the dedicated facilities available for this test on a list provided to CGE&Y. This spreadsheet will be known as the QWEST COLLO Spreadsheet.xls. These facilities will serve as HPC's facility inventory for the duration of the test. CGE&Y will be responsible for assignment of the facilities to specific orders and document this information on the associated test script. CGE&Y will maintain the facility list inventory, as orders are installed or disconnected, to ensure only the vacant facilities are assigned to orders. An update of the CFA status to 'vacant' or 'in use' will be based on HPC's receipt of a Service Order Completion (SOC) from Qwest on the associated order.

The QWEST COLLO Spreadsheet.xls will be used by CGE&Y to preassign orders to facilities and will be sent, via email, two weeks in advance of the order Due Date to Kim Jostes, Jason Noto and Kevin Carter at AT&T for preprovisioning. All lines should be provisioned with toll restriction and 900/976 blocking. The CGE&Y contact is Dan Benventano (dbenvent@usa.capgemini.com)

3.0 UNE-L Process (without NP) [AT&T: New In]

This section describes the interaction between the participants and identifies when and how communication should take place.

3.1 Provisioning

1. Two Business week prior to the anticipated due date of the test case, CGE&Y will email the QWEST COLLO Spreadsheet.xls to Kim Jostes at AT&T (kjostes@att.com, jrnoto@att.com, and kevinmcarter@att.com). All lines should be provisioned with toll restriction and 900/976 blocking.
2. Within 8 hours of receiving an Firm Order Confirmation (FOC), CGE&Y will email the Provisioning Request Form (PRF) with the test case details and Subject Line '[*Tracking Number*]– New IN' to Kim Jostes at AT&T (kjostes@att.com, jrnoto@att.com, and kevinmcarter@att.com). See Figure 1 below. The PRF will contain the Frame Due Time (FDT) that will be between 9:30 AM to 4:30 PM MST.
3. If any conflict is found with the assigned CFA, AT&T will notify CGE&Y of the new CFA via email within 48 hours of receipt with Subject Line '[*Tracking Number* – CFA Error]'. CGE&Y will update the CFA list and the test case script with the new CFA.
3. If there any changes to an order (DD, CFA, etc.) after the original PRF has been sent,

CGE&Y will contact AT&T via email with Subject Line '[*Tracking Number*]-New IN order Change and include a new PRF.

3.2 Testing

1. Once the installation is complete at the DMARK, Qwest will call HPC/Qwest. HPC/Qwest will then call AT&T, {Kim Jostes (303) 749-6948, Jason Noto (303) 749-6529 or Kevin Carter (303) 749-1560} with the Qwest tech on the line to notify them that Qwest has finished provisioning the order.
2. AT&T will make test calls on a separate line. After the test calls have been completed, AT&T will inform HPC/CGE&Y and the Qwest tech of the status of the test. At the conclusion of testing, AT&T will email the PRF to CGE&Y with Subject Line [*Tracking Number* – Test Results] and the result of the testing.
3. If a successful test call does not occur within one hour and after AT&T having followed normal internal trouble procedures, (e.g., checking all areas of the AT&T network). AT&T will provide CGE&Y with a status update. CGE&Y will notify HPC to contact Qwest and follow regular maintenance and repair procedures. When Qwest reports that the loop is installed, repeat from Step 1.
4. During the loop-testing interaction, the emailed status will serve to document the steps taken by CGE&Y and AT&T. In addition; HPC will update the comments on their record of the order with all testing activities. All parties should be careful to include date, time and description of activities to properly support data collection for the final report.

Provisioning Request Form

Sent Date and Time	
Tracking #	
Due Date Requested	
FDT/TBCC	
TN / CKID	
CFA	
Product Type	
FOC D/T	
Activation Complete D/T	
Test Results	
Test Complete D/T	
Remarks	

Figure 1: Provisioning Request Form

UNE-L with NP [AT&T: LOOP with NP]

This section describes the interaction between the participants and identifies when and how communication should take place.

4.1 Provisioning

1. Two Business week prior to the anticipated due date of the test case, CGE&Y will email the QWEST COLLO Spreadsheet.xls to Kim Jostes at AT&T (kjostes@att.com, jmoto@att.com, and kevinmcarter@att.com). All lines should be provisioned with toll restriction and 900/976 blocking.
2. Within 8 hours of receiving an Firm Order Confirmation (FOC), CGE&Y will email the Provisioning Request Form (PRF)(see Figure 1) with the test case details and Subject Line '[*Tracking Number*]– LNP' to Kim Jostes at AT&T (kjostes@att.com, jmoto@att.com, and kevinmcarter@att.com). See Figure 1. The PRF will include the Frame Due Time (FDT) for the Coordinated Hot Cut (CHC) that will be between 9:30 AM to 4:30 PM MST.
4. If any conflict is found with the assigned CFA, AT&T will notify CGE&Y of the new CFA via email within 48 hours of receipt with Subject Line '[*Tracking Number* – CFA Error]'.

   CGE&Y will update the CFA list and the test case script with the new CFA.

4. If there any changes to an order (DD, CFA, etc.)after the original PRF has been sent, CGE&Y will contact AT&T via email with Subject Line '[*Tracking Number*]-LNP Order Change' and include a new PRF.
5. Within 18 hours of the time the FOC is received by HPC, AT&T will send a subscription version concurred to the National Portability Administration Center (NPAC) to establish the ported number ownership on the due date. If the 18 hour window expires AT&T will send the subscription version create, and if there is no concur within 18 hours, AT&T will send an activate. CGE&Y will notify HPC to notify Qwest to concur on the subscription activate.
6. If the port out request from Qwest does not match the port in request from AT&T, a conflict will be set by the NPAC. Both Qwest and AT&T will be notified of the conflict status. AT&T will notify the CGE&Y of the conflict, who will notify HPC to resolve the conflict with Qwest. After resolution, HPC will notify CGE&Y to notify AT&T to continue with the provisioning of the LSR.

4.2 Testing

1. On the due date at the CHC time, Qwest will contact HPC to request permission to start the CHC. The CGE&Y monitor will observe the discussion that HPC and Qwest have to convert the service. Qwest calls HPC again and advises HPC that the cut is complete. The CGE&Y monitor will contact AT&T at (Kim Jostes (303) 749-6948, Jason Noto (303) 749-6529 or Kevin Carter (303) 749-1560) to notify them that Qwest has finished porting the loop and to have AT&T send the subscription version activate message and complete the port in.
2. AT&T will make test calls on a separate line. After the test calls have been completed, AT&T will inform HPC/CGE&Y of the status of the test. At the conclusion of testing,

AT&T will email the PRF to CGE&Y with Subject Line [*Tracking Number – Test Results*] and the result of the testing.'

3. If a successful test call does not occur within one hour and after AT&T having followed normal internal trouble procedures, (e.g., checking all areas of the AT&T network). AT&T will provide CGE&Y with a status update. CGE&Y will notify HPC to contact Qwest and follow regular maintenance and repair procedures. When Qwest reports that the loop is installed, repeat from Step 1.
4. On the due date at the CHC time, if the Qwest technician does not detect dial tone, HPC will verify that the technician is testing from the POT bay and not from the MDF. If the Qwest technician confirms the testing is from the POT bay, HPC will notify the CGE&Y monitor to contact the AT&T to check the facility. HPC will also verify that the Qwest technician did not cut the customer over with no dial tone. If the Qwest technician says that the customer was cut over without dial tone, HPC will instruct the Qwest technician to build the customer back into the Qwest switch, and then will notify CGE&Y to contact AT&T to check the facility.
5. If AT&T reports the facility is clear and translations are correct, HPC will notify Qwest to attempt the cut again.
6. If the problem cannot be resolved within the same day, HPC will Supp the order to change the due date to 5 days out and notify CGE&Y of the status of the LSR.
7. As soon as HPC receives the FOC on the supp'd order, CGE&Y will send a revised PRF, within 8 hours, to AT&T with Subject Line '[Tracking Number – LNP New Due Date]' with the new due date and a remark of 'no dial tone at COLLO'.
8. AT&T will request their tech to verify facilities and translations are correct
9. AT&T will send the PRF via email to CGE&Y prior to the supp due date advising of the results of the facility and translations verification.
10. On the supp due date, the HPC will follow the procedure described in step 1 above for the CHC.
11. If the Qwest technician still detects no dial tone on the supp date, HPC will request that Qwest issue a trouble ticket and CGE&Y will advise AT&T to issue a trouble ticket so both technicians can test jointly at the collocation
12. When the loop has been cut successfully, AT&T will notify CGE&Y by sending the PRF via email with Subject Line '[Tracking Number – Test Results].
13. During the loop-testing interaction, the emailed status will serve to document the steps taken by CGE&Y and AT&T. In addition, HPC will update the comments on their record of the order with all testing activities. All parties should be careful to include date, time and description of activities to properly support data collection for the final report.

Note: Any Changes of CFA's will require the due date to be moved out 2 weeks and AT&T notified of the change.

5.0 UNE NP [AT&T NP only]

This section describes the interaction between the participants and identifies when and how communication should take place.

5.1 Provisioning [formating]

1. Two Business week prior to the anticipated due date of the test case, CGE&Y will email the QWEST COLLO Spreadsheet.xls to Kim Jostes at AT&T (kjostes@att.com, jrnoto@att.com, and kevinmcarter@att.com). All lines should be provisioned with toll _____ restriction and 900/976 blocking.

2. CGE&Y will deliver the order scripts to the Pseudo-CLEC the day prior to the LSR order issue date. Scripts will include the data required to complete the LSR entry process. If the request is a coordinated conversion, the frame due time, implication contact and contact number will be included.

3. When the FOC is received CGE&Y will email the PRF within eight hours to Kim Jostes at AT&T (kjostes@att.com, jrnoto@att.com, and kevinmcarter@att.com). See Figure [format] AT&T with Subject Line '*[Tracking Number]* – LNP FOC'. The PRF will include the [format] Frame Due Time (FDT) for the Coordinated Hot Cut (CHC) that will be between 9:30 AM to 4:30 PM MST.

5. If there is a change to the due date requested on the script when the FOC is received, CGE&Y will contact AT&T via email with Subject Line '*[Tracking Number]* – LNP FOC Due Date Change'.

6. Within 18 hours of the time the FOC is received by HPC, AT&T will send a subscription version concurred to the National Portability Administration Center (NPAC) to establish the ported number ownership on the due date. If the 18 hour window expires AT&T will send the subscription version create, and if there is no concur within 18 hours, AT&T will send an activate. If the activate needs to be sent prior to the 18 hour time-out AT&T will notify CGE&Y via phone call, followed by an email, that HPC must ask Qwest to concur. CGE&Y will notify HPC to notify Qwest to concur on the subscription activate.

7. If the port out request from Qwest does not match the port in request from AT&T , a conflict will be set by the NPAC. Both Qwest and AT&T will be notified of the conflict status. AT&T will notify the CGE&Y of the conflict, who will notify HPC to resolve the conflict with Qwest. After resolution, HPC will notify CGE&Y to notify AT&T to continue with the provisioning of the LSR.

5.2 Testing

1. On the due date at the CHC time, the CGE&Y monitor will notify HPC to contact Qwest to convert the service. When Qwest advises HPC that the cut is complete, the CGE&Y monitor will contact AT&T {CONTACT NAME} at (303-749-6948) to notify them that Qwest has finished provisioning the loop and to have AT&T send the subscription version activate message and complete the port in.

2. Qwest will call HPC and notify them that they are ready to disconnect their end. Once Qwest disconnect, Qwest will call HPC and let them know. HPC will then call AT&T to notify them to activated order. AT&T will then activate TN(S) in NPAC.

3. AT&T will initiate testing on the ported TN, to ensure the TN has been properly converted. The test will consist of test calls being made. The test calls should reach an intercept message which states: "You have reached BTN "(the message will read back the BTN area code first). This number has been changed to 303-749-6948." AT&T will confirm the port in to CGE&Y by emailing the PRF with Subject Line '*[Tracking Number* – Test Results]'

4. During the conversion of the UNE NP, the emailed status will serve to document the steps taken by CGE&Y and AT&T. In addition; HPC will update the comments on their record of the order with all testing activities. All parties should be careful to include date, time and description of activities to properly support data collection for the final report.

6.0 Recovery of Facilities

At the conclusion of the Functionality Test CGE&Y will disconnect all lines on AT&T facilities. CGE&Y will notify AT&T via email that Functionality Testing has been concluded and that all facilities are released. AT&T will port all TNs back to Qwest and verify via an email to CGE&Y

7.0 Contact List

	Contact Name	Email	Phone
CGE&Y			
Primary	[Redacted]	[Redacted]	[Redacted]
Primary	[Redacted]	[Redacted]	[Redacted]
Escalation	[Redacted]	[Redacted]	[Redacted]
	[Redacted]	[Redacted]	[Redacted]
AT&T			
Primary	[Redacted]	[Redacted]	
Escalation			
HPC			
Primary			
Escalation	[Redacted]	[Redacted]	

Appendix G – Order Test Documents

UNE-L and UNE-P to UNE-L Order Test Document

Tracking # 0

Circuit Testing Status

Testing Status ----------> [ ]

In Progress (IP), Hold (H), Trouble Ticket required(TT) or Complete (C)

Follow-up Required

Circuit previously Disconnected

Date -----------> [ ]

Order # -----------> [ ]

****

Pre SOC Local Loop Test (Pass/Fail) ---------> [ ]

Post SOC Local Loop Test (Pass/Fail) ---------> [0]

Trouble Ticket required (Y/N) [ ]

****

Pre SOC QWEST Facility Test (Pass/Fail) ------> [ ]

Pre SOC CLEC Facility Test (Pass/Fail) ------> [ ]

Post CLEC Facility Test (Pass/Fail) ------> [ ]

Trouble to be turned over to CLEC (Y/N) [ ]

Notes:

0
0
0

Circuit Testing Request Form

QWEST Information

Date	1/0/00
CLEC	0
ECCKT	0
PON #	0
TN #(Conv. only)	-
ADDRESS	0

FDT/TBCC	Date ---------->	1/0/00
	Time ---------->	12:00 AM

Tracking # 0

Order Data

CLEC	0		
PON #	0	Order #	0
	FOC Date	1/0/00	
	SOC Date	1/0/00	
	Due Date	01/00/00	
TN #	-	ECCKT	0
CFA	0		
CUSTOMER NAME	0		
ADDRESS	0		
Contact Name	0		

Coordinated Hot Cut	1/0/1900	Date ---------->	1/0/00
		Time ---------->	12:00 AM

Tracking # 0

Testing Information

Test Auditor		Maintenance ADM	
Date of Observation		Time of Observation	

Order Status	SOC'd Order ☐ Order In Progress ☐ Circuit Disconnected ☐	If Disconnected Disconnect Order #	
		Date Disconnected	

Coordinated Hot Cut -- One (1) Hour **Prior to Cut**

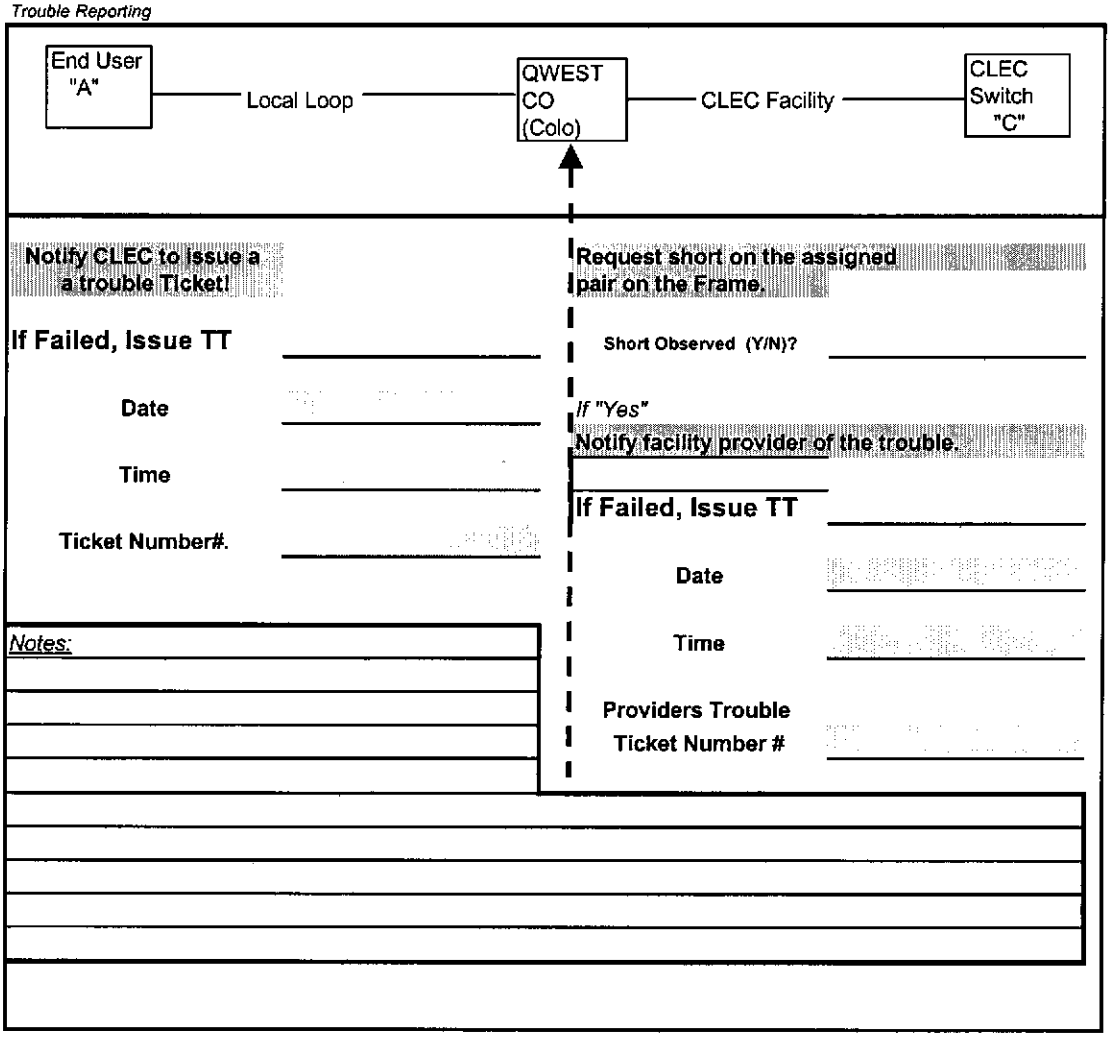
		QWEST	
LOOP (Verigate)		Dial Tone (Y/N)	
	(-)	Recording (Y/N)	
LOOP (MLT)		Recording Type	
		ANI	
Difference		Test Pass/Fail	
Is the loop length Difference > +1000' (Y/N)?		CLEC Dial Tone (Y/N)	
		Recording (Y/N)	
		Recording Type	
		ANI	
Test Pass/Fail		Test Pass/Fail	

After Cut or when **SOC'd**

		CLEC	
LOOP (Verigate)		Dial Tone (Y/N)	
	(-)		
LOOP (MLT)		Recording (Y/N)	
Difference		Recording Type (Dead Number,etc.)	
Is the loop length Difference > +1000' (Y/N)?		ANI (958)	
		CLEC or PB ANI	
Test Pass/Fail		Test Pass/Fail	

Tracking # 0

Trouble Reporting



UNE-L with NP Order Test Document

Tracking # 0

Circuit Testing Status

Testing Status ----------> [ ]

In Progress (IP), Hold (H), Trouble Ticket required(TT) or Complete (C)

Follow-up Required

Circuit previously Disconnected

Date ----------> [ ]

Order # ----------> [ ]

****

CHC Start Time ----------> 0:00

CHC CO called Time ----------> 0:00

CHC CO called Time ----------> 0:00

Trouble Ticket required (Y/N) [ ]

****

CHC CO Complete Time ----------> [ ]

CHC Complete Time ----------> [ ]

CHC Total Time ----------> [ ]

Trouble to be turned over to CLEC (Y/N) 0

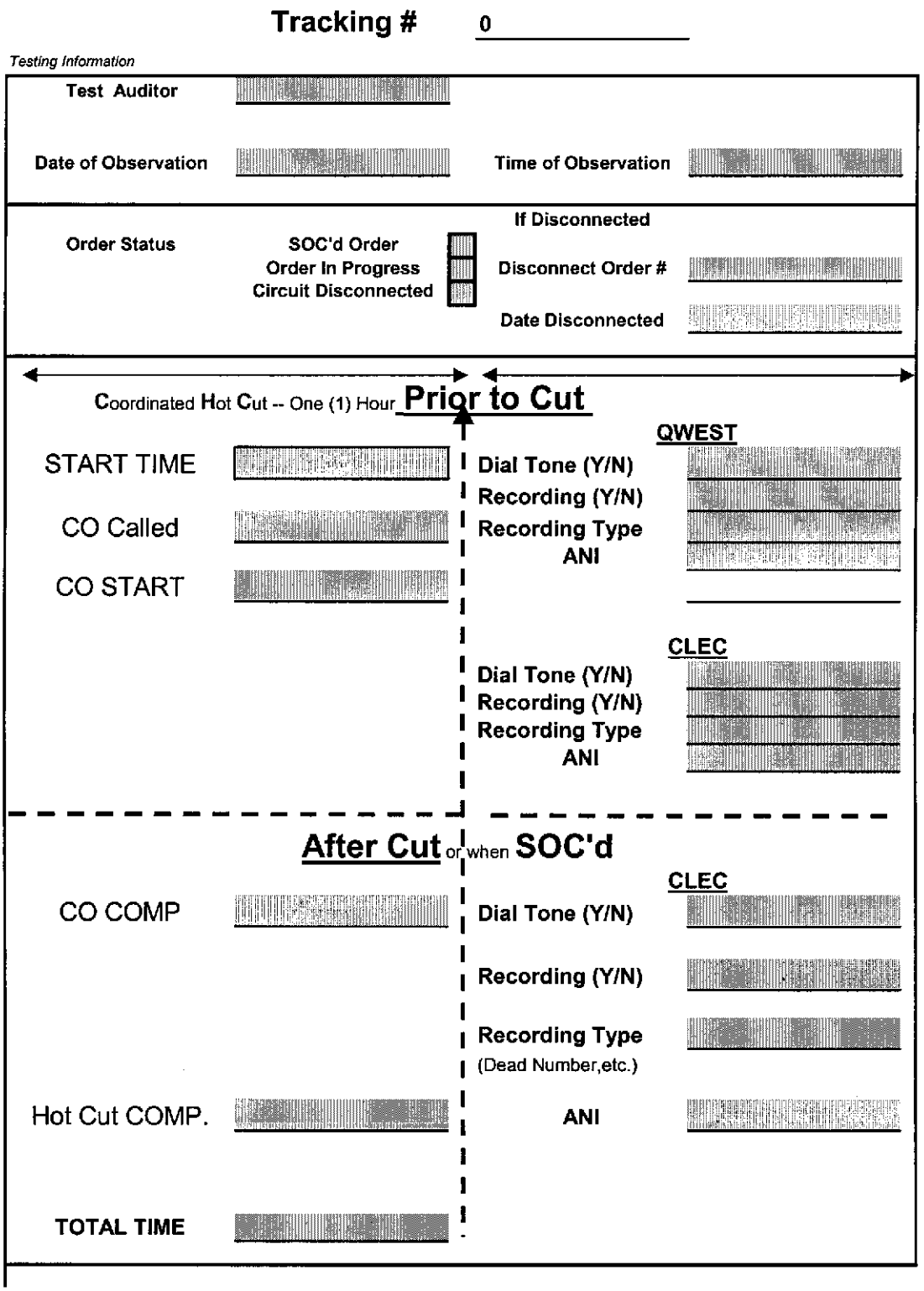
Notes:

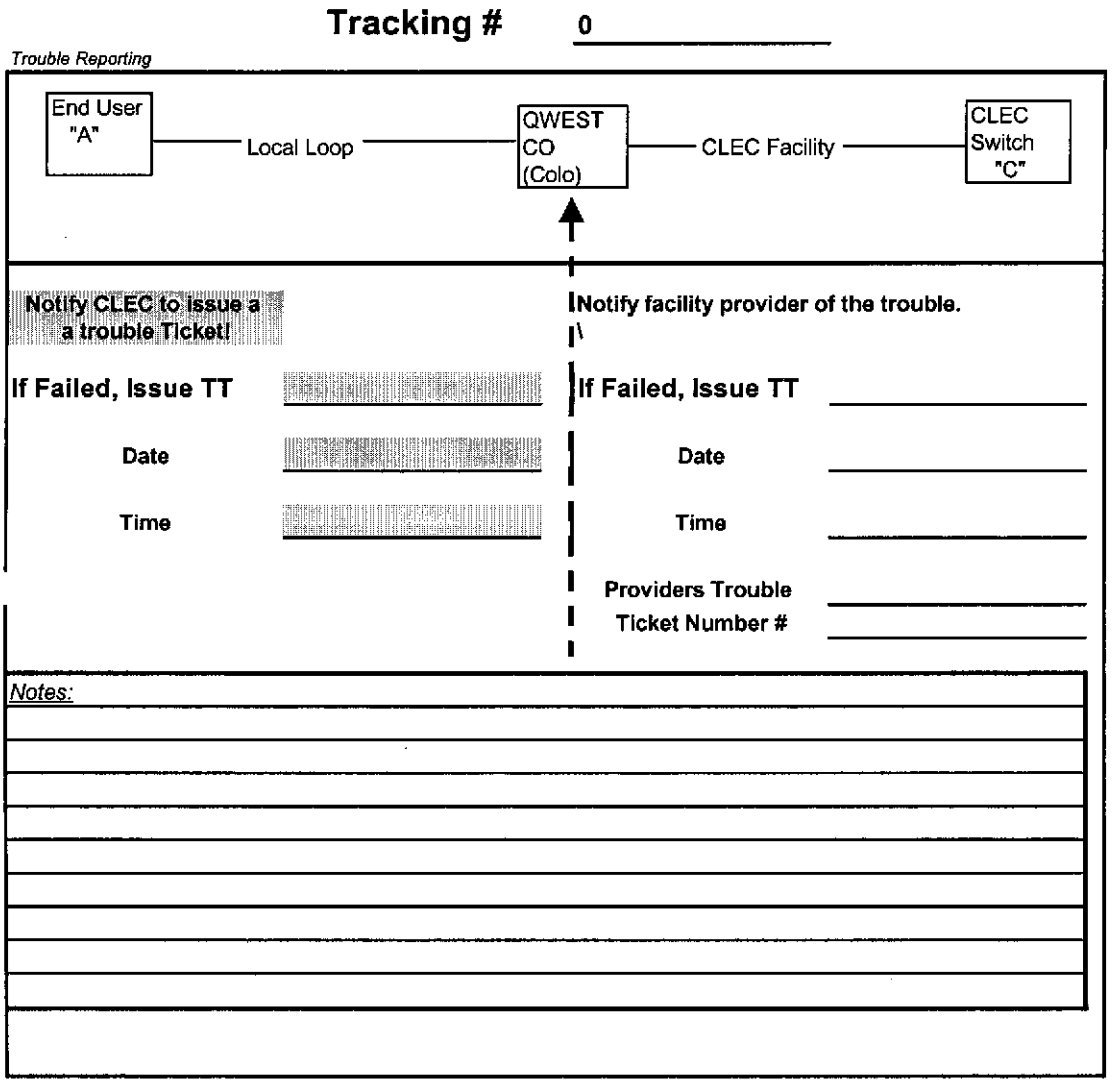
Circuit Testing Request Form

Tracking # 0

QWEST Information

Date		Order#	0
CLEC	HPC		
ECCKT	0		
PON #	0		
TN #(Conv. only)	-		
ADDRESS	0		
Coordinated Hot Cut	Y	**Date ---------->**	1/0/00
		Time ---------->	0:00





UNE with LNP Only

Tracking # 0

Circuit Testing Status

Testing Status ---------->

In Progress (IP), Hold (H), Trouble Ticket required(TT) or Complete (C)

QWEST FDT TBCC

Date ----------->	**1/0/00**
Time ----------->	**0:00**

****

Pre Test Call (Pass/Fail) --------->

1/0/00 0:00

Post Test call (Pass/Fail) --------->

1/0/00 0:00

Post Test call (Pass/Fail) --------->

1/0/00 0:00

Post Test call (Pass/Fail) --------->

Notes:

Circuit Testing Request Form

QWEST Information

Date	1/0/1900		
CLEC	0		
ECCKT	0		
PON #	0		
TN #(Conv. only)	-		
ADDRESS	0		
Coordinated Hot Cut	Y	Date ---------->	1/0/00
		Time ---------->	0:00

Tracking # 0

Order Data

CLEC	0		
PON #	0	Order #	0
	FOC Date	1/0/00	
	SOC Date	1/0/00	
	Due Date	01/00/00	
TN #	-	**ECCKT**	0
CFA	0		
CUSTOMER NAME	0		
ADDRESS	0		
Contact Name	0		
Coordinated Hot Cut	Y	**Date ---------->**	1/0/00
		Time ---------->	0:00

Tracking # 0

Testing Information

Test Auditor		**Maintenance ADM**	
QWEST FDT		**TBCC**	
CHC		**Date**	1/0/1900
		Time	0:00

LNPO - **Prior to Cut**		LNPO -- **Post Cut**	
DATE		**DATE**	
TIME		**TIME**	
Call telephone number:		**Call telephone number:**	
Findings		**Findings**	
Recording (Y/N)		**Recording (Y/N)**	
Recording Type		**Recording Type**	
Test Pass/Fail		**Test Pass/Fail**	

LNPO -- **Post Cut**		LNPO -- **Post Cut**	
DATE		**DATE**	
TIME		**TIME**	
Call telephone number:		**Call telephone number:**	
Findings		**Findings**	
Recording (Y/N)		**Recording (Y/N)**	
Recording Type		**Recording Type**	
Test Pass/Fail		**Test Pass/Fail**	

Tracking # 0

Notes:

Appendix H – Test Order Scripts

Test Order Scripts

Tracking_Number:

PON:

Issue_Date:

Media_Type:

WTN:

TN:

Customer_Type:

Customer_Name:

Service_Address:

Number_Of_Lines:

Hunt_Type:

Scenario:

CHC_Information:

Supplemental_Action:

Remarks:

Test Order Scripts

Line:

Feature:

PIC:

LPIC:

Directory:

CFA:

CBR:

Activity Request:

Appendix I – Letters of Authorization for Residence and Business

Letter of Authorization

Customer Billing Name:_____

Customer Billing Telephone Number:_____

Preferred Directory Listing (circle one): **Published** **Non-Published** **other:**_____

Secondary Line Telephone Number (if applicable):_____
(circle one) **Convert secondary line** **install second line** **install third line**

Customer Street Address: _____

City, State, Zip Code: _____

Individual authorized to act for customer: _____

Employer:_____

By signing below, I am authorizing Cap Gemini Ernst & Young (CGE&Y) to order QWEST or another phone company to install or convert up to two secondary telephone lines onto my premises for up to nine months, but in any event concluding no later than December 2001, and I further acknowledge and agree to be bound by, and to comply with, the terms and conditions specified below. All installation, conversion, disconnection or removal (if applicable) and usage billing related to ARIZONA CORPORATION COMMISSION (ACC) usage and functionality testing for said lines will be charged to CGE&Y.

I understand and acknowledge that the test lines installed and/or converted will be secondary lines that may not be available for use at all times. I agree to hold CGE&Y and all other parties involved in the usage and functionality testing harmless from any damage or injury related to the installation, removal or non-availability of the lines related to the ACC usage testing. I acknowledge and agree that CGE&Y may disconnect or remove such lines or convert such lines back to their original state at any time without notice.

The newly installed lines are to support the testing effort. I understand I will be responsible for conducting the testing on the test line(s).

I understand the activities surrounding the installation and usage testing is private and confidential and I agree not to disclose any information surrounding the installation, usage or testing to anyone other than CGE&Y.

I understand and agree that any usage other than ACC testing usage will be considered unrelated to testing and will be billed to me personally and that I will be responsible for, and will timely pay, for such usage.

I understand and agree that I will be responsible for performing a limited number of test calls on this test line (5 to 10 test calls a month) to generate call activity on the test line and I will record the execution and results of those test calls on the Call Detail Logs provided to me prior to testing. I understand CGE&Y will provide the specific test calls to be completed on the test line.

I understand I will be provided Call Detail Logs to report on test call execution and I will be responsible for completing the Call Detail Logs on the specified date and returning the Call Detail Logs to CGE&Y in the postage paid envelope I will receive prior to testing.

I acknowledge and agree that by allowing for the installation or conversion of the secondary test line or lines, by performing the test calls, recording the results in the Call Detail Logs, returning such logs to CGE&Y and all other matters related thereto. I will not be considered an employee of CGE&Y, I will not be entitled to any salary or benefits accorded to CGE&Y employees. The sole consideration for the installation or conversion of the secondary line or lines, the making and the recording of the test calls in the Call Detail Logs, returning such logs and all matters related thereto or hereto shall be $1.00.

By signing below, I certify I have read, understand and agree with and to all of the provisions and terms and conditions in this Letter of Authorization. I further certify that I am at least 18 years of age and I am authorized to allow telephone installations for service and conversions of existing lines specified by me to the address listed above.

Please sign and return this Letter of Authorization by *(2 weeks from distribution date)*. If there are any questions, call one of the numbers below.

Signed_____ **Date**_____

Thank you for opening your facility and/or home in order to assist the ACC Sedona Project End User Test Team in fulfilling our testing requirements.

Return Signed LOA to: Cap Gemini Telecommunications **Or FAX to: (480) 736-8505**
Attn: SEDONA TEAM
[Redacted]
[Redacted]
[Redacted]

ACC Sedona Project End User Test Team:

[Redacted]– End User Team Lead

[Redacted]

[Redacted]

Letter of Authorization

Customer Business Billing Name: _____

Customer Business Billing Telephone Number: _____

Preferred Directory Listing (circle one): **Published** **Non-Published** **other:** _____

Secondary Line Telephone Number (if applicable): _____
(circle one) **Install new line/s** **Convert specified line/s**

Customer Street Address: _____

City, State, Zip Code: _____

Individual authorized to act for customer: _____

Employer _____

By signing below, I am authorizing Cap Gemini Ernst & Young (CGE&Y) to order QWEST or another phone company to install or convert multiple lines as specified onto my premises for up to nine months, but in any event concluding no later than December 2001, and I further acknowledge and agree to be bound by, and to comply with, the terms and conditions specified below. All installation, conversion, disconnection or removal (if applicable) and usage billing related to ARIZONA CORPORATION COMMISSION (ACC) usage and functionality testing for said lines will be charged to CGE&Y.

I understand and acknowledge that the test lines installed and/or converted will be secondary lines that may not be available for use at all times. I agree to hold CGE&Y and all other parties involved in the usage and functionality testing harmless from any damage or injury related to the installation, removal or non-availability of the lines related to the ACC usage testing. I acknowledge and agree that CGE&Y may disconnect or remove such lines or convert such lines back to their original state at any time without notice.

The newly installed lines are to support the testing effort. I understand I will not be responsible for conducting the testing on the test line(s).

I agree not to disclose any information surrounding the installation to anyone other than CGE&Y.

I understand and agree that any usage other than ACC testing usage will be considered unrelated to testing and will be billed to me personally and that I will be responsible for, and will timely pay, for such usage.

I acknowledge and agree that by allowing for the installation or conversion of the test line or lines,. I will not be considered an employee of CGE&Y, I will not be entitled to any salary or benefits accorded to CGE&Y employees. The sole consideration for the installation or conversion of said lines hereto shall be $1.00.

By signing below, I certify I have read, understand and agree with and to all of the provisions and terms and conditions in this Letter of Authorization. I further certify that d I am authorized by my company to allow telephone installations for service and conversions of existing lines specified by me to the address listed above.

Please sign and return this Letter of Authorization by *(2 weeks from distribution date)*. If there are any questions, call one of the numbers below.

Signed_____ **Date**_____

Thank you for opening your facility and/or home in order to assist the ACC Sedona Project End User Test Team in fulfilling our testing requirements.

Return Signed LOA to: Cap Gemini Telecommunications
Attn: SEDONA TEAM
[Redacted]
[Redacted]
[Redacted]

Or FAX to: (480) 736-8505

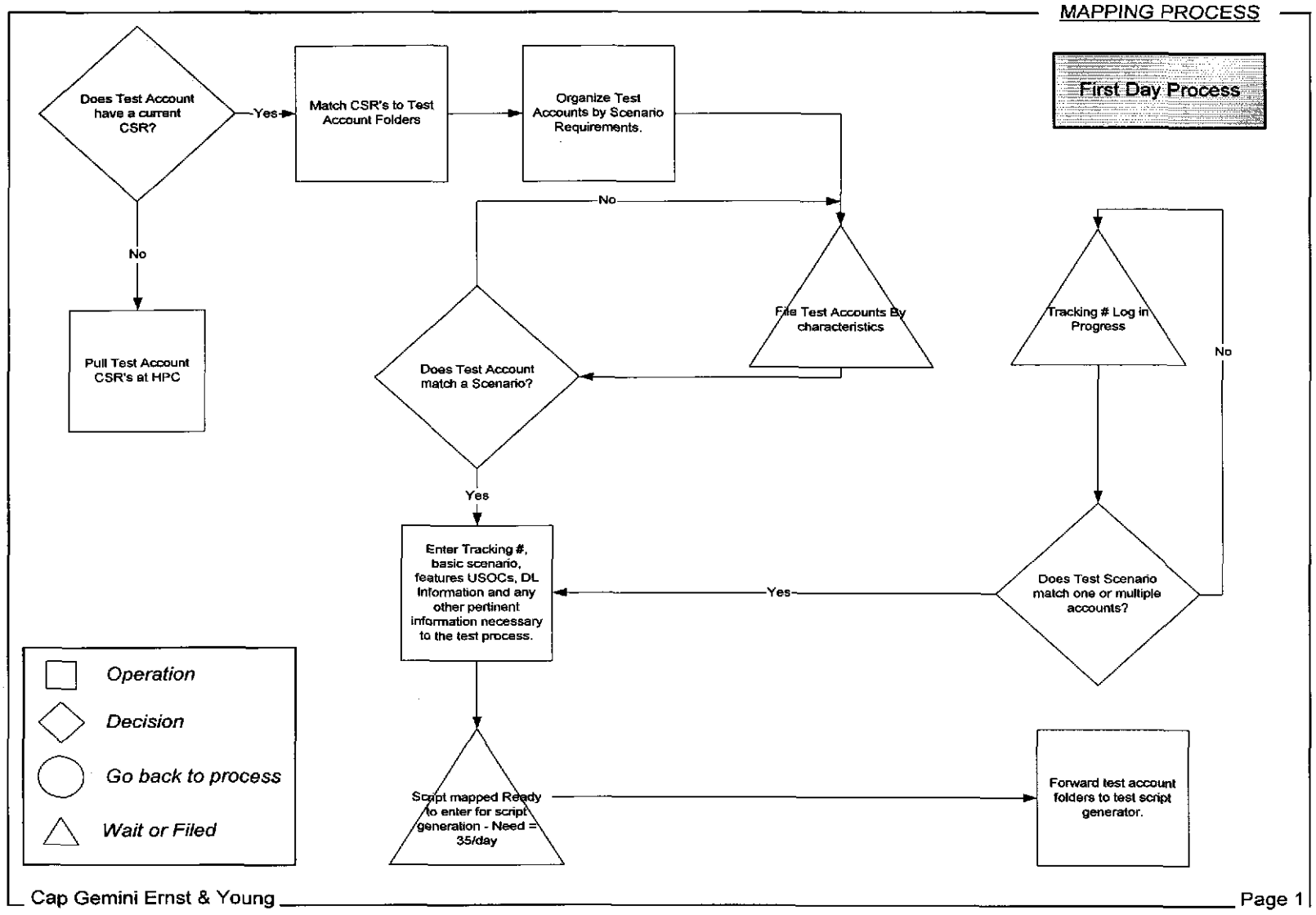
ACC Sedona Project End User Test Team:

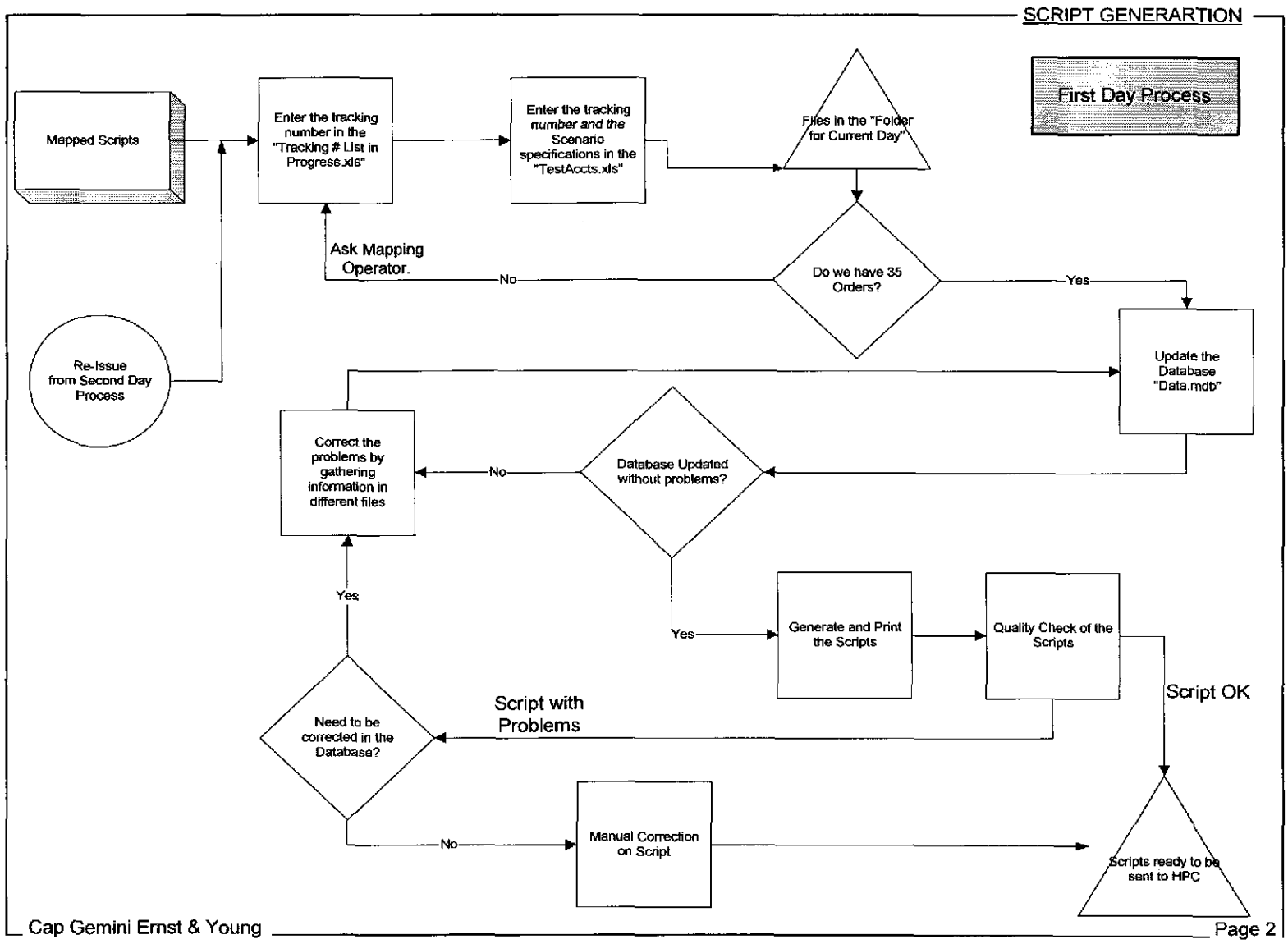
[Redacted]– End User Team Lead

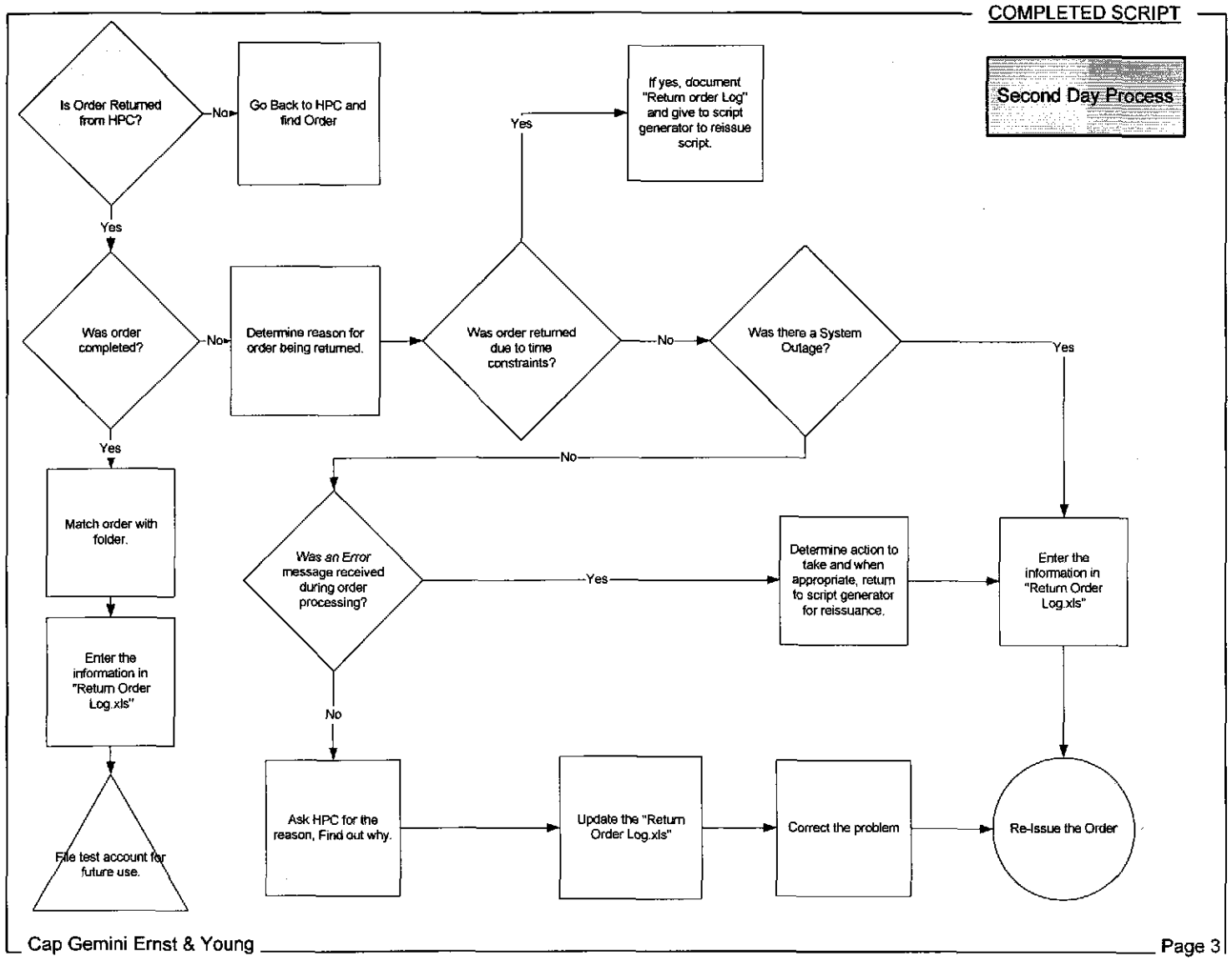
[Redacted]

[Redacted]

Appendix J – Order Execution Process







Appendix K – COVAD Observation Data

Tracking Number	PON	INTERFACE	Date Submitted	Requested Due Date	Pending Status	FOC Received	Due Date	Comments
XDSL21SF001		IMA						The main TN 480-736-5800 was entered via the raw loop tool a addres Redacted S. Cottonwood Rd displayed. When the address Redacted Broadway Ste. B240 was entered a valid range could not be found. Mr Bennett looked up the information in the Qwest systems and found th Broadway entry should have been Broadway RD. Also, the wrong addi display was the result of the main CGEY number in Premise was 7360 Unless the main billing number is input, the loop tool will not display t correct information. Observation: Covad con that ISP's get numbers from the end users. If they have second lines, th the number given to process. This creates a problem with the way Prem structured and the data displayed.
XDSL21SF002	996343	IMA	4/5/2001 0:00	4/12/2001 0:00	JEO	4/9/2001	4/12/2001	Not provisioning SLCs.
XDSL21SF003	990170	IMA	4/3/2001 0:00	4/11/2001 0:00	JEO	4/6/2001 6:40:00 PM MDT	4/11/2001	When telephone number was entered, the raw loop tool pulled up the ad of xxx S. McDonald.
XDSL21SF004	920065	IMA		3/6/2001 0:00	JEO	3/1/2001	3/6/2001	Held order 3/1. F1 missing. 1) FOC information is generic and lacking requires CLEC to call help desk for true resolution. 2) The jeopardy nc was received the next day, 3/2, clarifying the "no facilities." This PON F due to lack of facilities. The first JEO FOC was unclear as to what the pr was. A follow-up jeopardy notice from Qwest the next day told them tha F1 cable was not available. This service came through a pair gain dev
XDSL21SF005	1063110	EDI	5/4/2001 9:20:00 AM PST		REJ			Reject same day because of invalid Connect Facility Assignment (CFA). minute later it was re-submitted. Haven't heard back.
XDSL21SF006	1058533	IMA	5/2/2001 4:51:00 PM PST	5/9/2001 9:00:00 AM MDT		5/7/2001 9:49:00 AM MDT	5/9/2001 9:00:00 AM MDT	According to Qwest technician at Demarcation point on 5/7, the real lo length is 18.9 KF. Going to send back for redesign to obtain total rea
XDSL21SF007	824216	IMA	12/27/2000 5:45:00 PM PST			1/2/2001 10:55 AM MDT	1/4/2001	Technician sent back for re-design. Loop was 19.8 KF.

XDSL21SF008	833772	IMA	1/3/2001 7:47:00 PM PST	1/11/2001 12:00:00 PM MDT		1/3/2001 8:50:00 PM MDT	1/11/2001	
XDSL21SF009	1058582	IMA	5/3/2001 11:53:00 AM PST	5/10/2001 0:00		5/3/2001 12:59:00 PM MDT	5/10/2001	
XDSL21SF010	1013789	IMA	4/16/2001 7:38:00 AM PST	4/23/2001 0:00		4/18/2001 1:10:00 PM MDT	4/23/2001	No facilities available so missed date. No F1.
XDSL175001			4/13/2001 0:00					The loop qualification for Redacted w. LaJolla Drive was 21KF. This elim the location from DSL service. In the raw loop data tool program, the se could not be pulled by directory number but could be accessed by addre verify a CSR was attempted. It failed with an error no CSR available
XDSL175002	1002290		4/13/2001 0:00	4/20/2001 0:00	REJ		4/20/2001	Line share not available – pending order. LSR rejected. Customer not 30 days. (Cannot be accessed if primary number not 30 days old.)
XDSL175003	1009635	EDI	4/13/2001 0:00	4/20/2001 0:00	REJ	4/18/2001 9:25:00 AM MDT	4/20/2001	First time came back as Reject because of invalid address. Second ti submitted via IMA and came back as Jeopardy – held status. Called I desk on 5/8 and they said it had been re-screened and still remains a l order.
XDSL175003	1009635	IMA	4/13/2001 0:00	4/20/2001 0:00	JEO	4/18/2001 9:25:00 AM MDT	4/20/2001	Same as above.
XDSL175004	514018		7/24/2001 0:00	8/1/2001 0:00	REJ		8/1/2001 (first one)	First FOC came back with 8/1/2000 due date. Second FOC came bac 8/14/2000 as a Jeopardy because of held order for redesign. Third FOC back to change due date to 8/22/2000.(See John's notes on form.)
XDSL175005	1018421	IMA	4/13/2001 0:00		CANC			Cancelled order due to "no facilities." Question – Why no facilities wh records reflect line sharing at 2.52 KF.
XDSL175006	1059869	IMA	5/3/2001 8:50:00 AM PST	5/10/2001 0:00			5/10/2001	
XDSL175007	1025924	IMA	4/18/2001 3:50:00 PM PST	4/25/2001 0:00		4/18/2001 5:50:00 PM MDT	4/25/2001	
XDSL175008	1059716	IMA	5/2/2001 8:05:00 PM PST	5/10/2001 0:00		5/3/2001 12:07:00 PM MDT	5/9/2001	

XDSL177001	The loop qualification for Redacted S Alma School Rd in Mesa was 22 DSL cannot be offered. The loop data tool could not find the service *directory number but did find it by address.*
XDSL177002	The address Redacted E. Southern Ave was not found in Qwest's data t
XDSL177003	The raw loop tool identified a loop of 15KF but the MLTDIST=25,300 f When accessed by the address, the loop read 5.5KF with no loads. Aga MLTDIST varied displaying 8300 KF.
XDSL177004	The raw loop tool when requested by TN displayed a different address th the account. No loop information was displayed. When displayed by adc the correct account was accessed but the TN did not display. Also, no information was available.
XDSL177005	The loop was displayed at 11KF and qualifies for provisioning.